



The
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No. 1

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THE MODERN HOSPITAL



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NUMBER 1

How Will the Grading Committee's Work Affect Nursing Schools?

By CLARIBEL A. WHEELER

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FIVE years ago seven national nursing, medical, hospital and public health organizations were so convinced that there was something wrong with our present system of nursing education that they agreed upon a five-year program to study the situation.

The work has been practically completed at a cost of over \$182,000. Of this amount the nurses of the country have raised over \$100,000 because they wanted to have schools studied and graded. Of the 2,205 schools invited to join in the study, 1,458 participated. The third and last section of the report on schools will be released shortly. The study has been scientifically made by experts who know their job. It represents a stupendous piece of work and is a noteworthy accomplishment. It is true that the committee has not been able to present all the facts about our schools. Only certain facts could be brought out without a thorough personal investigation by trained experts, and this was purposely avoided by the committee. It has submitted a volume of important and significant findings which should serve as a basis for an immediate constructive program.

The important issue that confronts hospital superintendents and heads of schools of nursing is the question of what use is to be made of these facts now that we have them. After the expenditure of so much money, are the reports going to be

filed away and forgotten, or are they going to be used as a basis for study by boards of trustees, hospital superintendents and the nursing faculty? What will be done, I cannot predict. What should be done is a matter on which I have deep convictions. None of us can sit back complacently and say that the report does not concern us or that it would be impossible for us to do anything about it if it did. The report concerns every hospital in this country that conducts a school of nursing. It shows the weaknesses in the best as well as in the poorest. If we evade the issue raised we neglect our duty to schools of nursing, to our patients in the hospitals and to the community in general.

The first two years of the program was devoted to a study of the supply and demand of nursing service. "Nurses, Patients and Pocketbooks" was the result of this study. Contrary to the current belief that there was a dearth of trained nurses in the United States, it was found that there was a surplus, particularly of poorly trained nurses. It was estimated that there were about 200,000 graduate nurses in the United States, or one nurse to every 590 persons. In 1880 there were only fifteen schools of nursing, with 157 students graduated yearly. In 1928, the schools had increased to 2,296 with nearly 20,000 new graduates entering the profession. Dr. May Ayres Burgess, Committee on Grading of Nursing Schools, New York City,

pointed out that unless something was done to decrease the number entering the profession, in seventeen years the graduate nurse population would be doubled. The problem of unemployment in our larger cities has grown more serious each year, while in certain rural areas no nurses are to be found.

The study also showed that educational standards were low. Nearly one-half of the graduates already in the field have never finished high school. In addition many of these women have been unprepared to take certain types of cases that required skilled nursing. They have drifted into private duty as there was no other place for them to go. They are not qualified to hold positions in hospitals or in the field of public health nursing. In spite of the number of women in the profession it is extremely difficult to find those who are prepared for important teaching and executive posts. It is regrettable that a system is sanctioned that sends young women into a profession for which they are unprepared. An illustration of such inadequate preparation was brought out in the conclusions of the subcommittee on nursing of the White House Conference on Child Health and Protection. Here we find these comments: "The exploitation of student nurses for cheap labor in hospitals that are in no position to offer even reasonably adequate theoretical or practical instruction, is the underlying cause of poor nursing service in all branches, including pediatric nursing. Schools of nursing are basing experience for their students on the daily needs of the hospital without consideration of their future service to the community." Is it not unfair both to the nurse and to the public to allow such conditions to exist?

The study of the schools of nursing by the committee on grading was undertaken with the idea of actually setting up a classified list of schools based on their findings. Many persons have been disappointed that this has not been accomplished. On the other hand, the facts revealed by the study show such startling inequalities in the schools as to make the setting up of a simple set of standards on which to grade an almost impossible task.

Too Many Small Schools

Let us look for a moment at some of the most outstanding weaknesses found in our schools. The report on the student body shows that the typical or middle school has a student body of thirty-seven students. One-fourth of all the schools have a student body of twenty-two or less. One-half the schools are connected with hospitals that have a daily average of seventy-five patients or less; one-fourth are connected with hospitals with a daily average of forty-two patients or less. The less may

mean as few as ten patients a day. Is it feasible or profitable for any hospital that is expending public funds to conduct a school that has a student body of twenty-two students and a daily average of less than forty-two patients? The grading committee asks us, "How can such a small school provide the amount of variety of clinical experience upon which the whole of nursing education rests?" It also points out that no matter how small a school is there must be properly equipped classrooms and laboratories, a reasonably well equipped library and a faculty to teach the necessary subjects. I don't wish to infer that all small schools are poor schools and that all large schools are good schools. That is not true and is beside the point. There is an economic principle involved in this problem which we cannot refuse to face.

Costs Should Be Budgeted

Only 13 per cent of the schools studied operate on a budget. In eighty-seven out of every 100 schools the head of the school has no way of knowing in advance how much money she can plan on spending for her educational work. Not only is this true, but the hospital superintendent and the board of trustees do not know how much their schools of nursing are actually costing them. Of the hospitals participating in the study only 24 per cent actually knew how much their schools were costing them, 34 per cent thought they could estimate the cost and 42 per cent said they could not even estimate the cost. The committee points out that, "It is a rare board, indeed, that is able to distinguish clearly between money needed for nursing its patients and that needed for educating its students. The real question at issue is, Are the trustees making or losing money by maintaining a school?" Cost studies have been made by a few of the larger hospitals, where it was found that the cost of the school was only a little less than that of graduate service. If this is true of large schools, I am convinced that very small hospitals will find they are better off without a school—that is, if they are maintaining a real school.

It is encouraging to note that the educational standards for admission are steadily rising, and in one-fourth of the schools 90 per cent or more of the students are high school graduates, while in only one-fourth of the schools is the percentage of high school graduates as low as 44 or lower.

It seems almost incredible that in ninety-one schools students are still required to work from nine and a half to ten and a half hours a day. These hours do not include time spent off duty for class or for meals. It means time actually spent in work on the wards. Instances are reported where students have spent over a year on night duty alone.

In 53 per cent of the schools less than seven weeks' vacation is given during the entire course. Some of the schools do not give regular health examinations as a routine.

Another matter that gives us cause for serious reflection is the fact that students are carrying 64 per cent of the nursing load as compared to the 7 per cent carried by graduate floor duty nurses. In other words many hospitals are depending entirely upon the student body to nurse their patients. This leads directly to one of the greatest evils pointed out by the grading committee, that is, the difference in the amount and kind of clinical experience in the major services in the various schools, to say nothing of the wide variation within the individual schools. The fact that a school plans to give a certain number of months on a service does not necessarily mean that a student will receive that amount of time. For example, a school may plan to give four months on a certain service, yet the student may actually get from one to eight months. The experience in medical nursing for students in the same graduating class varied all the way from 180 to 437 days. The same was found to be true of other services.

The amount of potential care given to each bed patient, not including patients nursed by special nurses, was found to vary all the way from less than half an hour to eight and one-half hours per day. The typical patient received three and a half hours of care. This figure included the time spent on the patient by nurses, orderlies and maids. Where there is a shortage of nurses the patients pay the price in lack of care, and the students cannot be properly trained. "It is clear that we cannot expect to train good nurses unless the students are given an opportunity to practice good nursing." We need to have more time studies made to determine just how much nursing care per day various types of illnesses require, and then to assign nurses according to the needs of the patient.

How Study and Work Should Be Divided

The National League of Nursing Education curriculum has suggested 885 hours of theory to 6,252 hours of practice, which is certainly not extreme for a professional school. Twenty-nine per cent of the schools give 500 hours or less. A full-time instructor was found to carry anywhere from one to twenty-two subjects. Two cases were cited in which the instructor carried full responsibility for four subjects and assisted with the teaching of sixteen others. One cannot but feel sorry for both instructor and students in such a situation.

One of the most surprising facts brought out by the study is that in 45 per cent of the schools the

student body has been in residence longer than the superintendent of nurses. To be exact the average length of time a superintendent of nurses spends in a hospital is two years. This is equally true of other members of the teaching personnel—instructors, supervisors and head nurses. They do not stay in the hospital long enough to know its policies or to do a constructive piece of educational work.

Graduate Nurses Are Poorly Paid

The lack of preparation of the graduate staff, as to both theoretical background and experience, is rather appalling. Only 16 per cent of the graduate nurses studied have had one or more years of college and 42 per cent have had less than four years in high school. Furthermore, 85 per cent have had no advanced professional experience in the way of postgraduate courses. The majority of the members of the graduate staff do not attend conventions or institutes. The committee found that "In every one of the faculty groups involved in this study, the typical graduate nurse is unhappy and is hunting for another job. This is a more powerful argument than any other so far presented to demonstrate the necessity for some sort of drastic reorganization in schools of nursing." The median salary for all graduates in hospitals is \$1,250 with maintenance. This is not particularly low as compared with salaries for women in general, but it must be remembered that half of the nurses receive less than this median salary. Consequently, salaries are in many instances below a reasonable standard for professional women.

Three out of four schools have a training school committee. This means that one out of four has none. In 38 per cent of the schools the head of the school attends the meetings of the board of trustees when matters concerning the policy of the school are discussed; in 19 per cent the head often attends, but in 43 per cent she rarely or never attends.

I have called attention to some of the major criticisms of and suggestions in regard to our present system of nursing as made by the committee on grading. The question is, what are we going to do about them? If we are successfully to educate nurses to meet the actual demands of the community certain changes must take place. The first step, I believe, is for every hospital to make a thorough analysis of its facilities in the light of the facts that have been revealed to see if it is justified in having a school. The second step is to make a study of the costs of conducting a school and compare this with the cost of graduate service. The grading committee is particularly anxious that these studies be made, and expects to send to all hospitals detailed instructions for making such a study. It is suggested that the studies be made by the chairman of

the training school committee, the hospital superintendent and the head of the school.

To quote from the report, "There are too many schools of nursing in the United States, and anything that will help reduce the number and in so doing improve the quality of new graduates entering the profession is important and worth studying." The present need is for fewer and better nurses who are really prepared to meet the increasing demands of the medical profession and a more discriminating public. Without doubt many schools that are not particularly interested in nursing education have a school because they think it costs less money. On the other hand, a goodly number of hospitals must continue to educate nurses if an adequate supply is to be maintained. The idea of central schools is one that seems to demand further study and experimentation. One good school would be far better in a community than several poor ones and would represent less waste.

Eliminating Undesirable Students

In the light of what we have learned there seems to be no question that it is a desirable policy to employ a staff of graduate floor duty nurses to stabilize the nursing service so that students will not be depended upon to carry the entire nursing load; so that they may have time for class work and good ward practice on wards adequately staffed and supervised; so that they will be placed on wards where the work has educational value and held there for a definite period.

Statistics show that approximately only half of the students admitted to schools of nursing actually graduate. Many do not complete the preliminary course. When one considers the enormous waste of money spent on persons unsuited for the work, the need for better methods of selecting applicants becomes apparent. Many undesirables could be eliminated before the student enters the hospital if personal interviews, physical examinations and proper tests were instituted. I am convinced that all students should pay tuition fees, not only for the preliminary study but for the entire course. Schools would be established on a much sounder basis if tuition fees were required of all students and if in return they were paid for their services.

Hospital superintendents can to a certain extent influence the activities of the graduate staff as they help select them, pay them and to a great extent control their mode of living. As I know the members of the teaching staff, they are the most overburdened group of workers in the hospital. They have little time off duty compared with other members of the graduate staff, yet we expect them at all times to be fresh, to be filled with enthusiasm and to furnish incentive and inspiration to our

young students. The report of the committee shows that the entire nursing staff should be more carefully selected.

Boards of trustees must become more familiar with the problems of nursing education than they have been in the past. The grading committee believes that "the basic difficulty in the preparation of nurses arises from the fact that practically all schools are proprietary. They are run by hospital boards of trustees as part of the business activity of the hospital and not as an educational project. Educational decisions are regularly made by the hospital board in the light of what is best for the hospital, not what is best for the school." It seems conceivable to the committee that hospital boards might conduct schools of nursing as educational institutions operating in cooperation with, but not subordinate to, the hospital. It is believed that the basis for real improvement in nursing education and therefore in the quality of graduate service must be in the recognition of the fact that the training of the nurse is an educational enterprise and can be carried on successfully only when controlled by those interested in the education of the nurse. The committee suggests to the hospitals that they should have a training school committee and that the head of the school should be allowed to attend the meetings of the board of trustees whenever matters affecting the nursing care of patients and the practical experience of the students are to be discussed.

Nursing Schools Should Be Endowed

Finally and perhaps more important than all else, because so much depends upon it, all schools of nursing should have separate funds or endowments to carry on their educational program. Usually funds are given hospitals for specific purposes and it is not easy to divert them toward educational projects. As Edwin R. Embree, president, Julius Rosenwald Fund, Chicago, has well said, "What we need is a small number of nurses very much better trained for their great responsibilities for human health and life. This kind of graduate will come only from schools where education is the prime motive. This means adequate support from the community for schools of nursing." If a hospital is to have a school of nursing the trustees should be just as much interested in securing endowments for the school as for the hospital itself. After all, is it not the lack of funds that is at the root of most of the trouble with our present system? When nursing education is supported in the same manner as other forms of education, we shall have gone a long way toward solving some of our problems.¹

¹Read at the annual meeting of the Midwest Hospital Association, St. Louis, April 18.

For Babies Only

By WILLIAM T. FRARY

Boston



THE development of the North Shore Babies' Hospital, Salem, Mass., is an interesting example of what may be accomplished in a community in which a charitable and philanthropic spirit prevails.

In 1904 many babies in Peabody, Mass., were suffering from intestinal infections. In crowded tenements, without adequate nursing or proper food, children were dying. To alleviate this suffering, a group of representative citizens established the Peabody Fresh Air Fund to give sick infants day care. This care was provided at a camp on Baker's Island, situated in Salem Harbor. The project was so successful and the need it filled so appealing that in 1905 interest outside of Peabody was aroused and in February of that year the Babies' Summer Hospital Society was organized and incorporated. Two cottages on Baker's Island were leased for the purpose of providing both day and permanent care for sick babies.

New Location a Necessity

During the next four years the work grew rapidly. Due, however, to the inconveniences of transportation and to the unsuitability of the island during anything but midsummer weather, a new location for the hospital was considered a necessity in view of the broadening scope of its service. In 1909, therefore, there was purchased in Salem an estate consisting of nine acres of land and a thirteen-room house. This house forms the nucleus of the present hospital building. In the same year the

name was changed to the North Shore Babies' Hospital. On June 22, 1910, the hospital was opened for the first time on the mainland and fifty-one babies were treated. From then until 1926 the hospital was opened from June until November. All through these years and especially after 1920, the need for a year-round hospital was continually felt. As a result, the hospital was extensively remodeled and opened in June, 1926, as a year-round institution.

Many Improvements and Additions

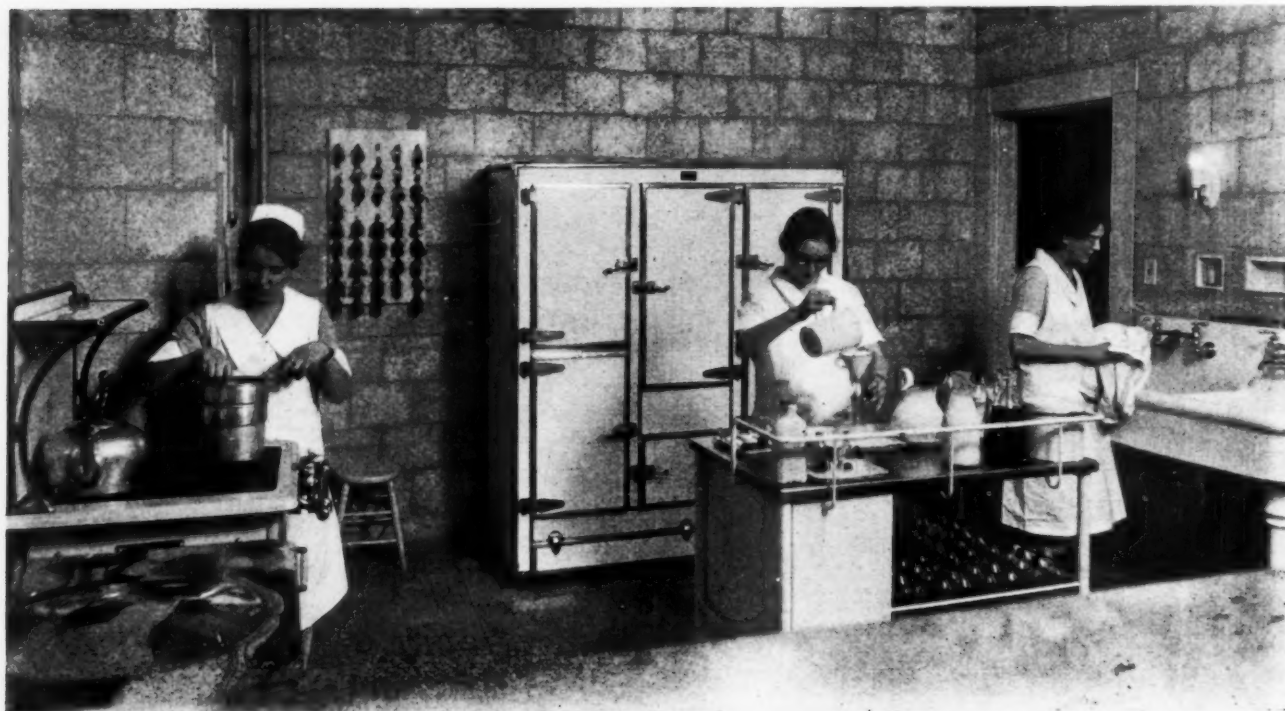
The first full year that the hospital was open, 257 babies were treated, and this past year 374 babies were cared for, an increase of more than a hundred in three years.

Along with this increase have gone many improvements and additions, and to-day the North Shore Babies' Hospital is recognized by the American College of Surgeons as a Class A hospital. The surgical service was not begun until 1929, and last year there was a 50 per cent increase in the number of operations.

The hospital is well arranged. In the basement are a laundry, a heating plant, an x-ray room and a laboratory. On the street floor is the business office, and opposite this is the Ida A. Smith play room which is attractively furnished with children's chairs, tables, rocking horses and innumerable small toys. A lamp that produces artificial sunlight is also in this room. Every day, regardless of the weather outside, the sun shines in this room, and



The main building of the North Shore Babies' Hospital, Salem, Mass., of typically New England design, is shown in the upper picture. In the food room, pictured below, formulas are prepared, each one different, for the family of forty to fifty babies. Cereals, vegetables and prunes are also prepared here.



the little ones bask in its healing rays. Leading from this is the Jewel Nursery where the toddlers eat and sleep. Across the hall is a bathing room especially designed with a view to eliminating cross infection. Each baby has its own basin, thermometer and comb, and a tooth brush if it has reached the tooth brush age.

Convenient to this room are a large linen closet and a medicine closet. Parallel with the office and bathing room is a long sun porch, glassed in and heated, which provides a ward for sixteen babies. The sun shines in these windows from early morn-

A playroom well stocked with toys is an aid during both treatment and convalescence.



ing until late afternoon. Then comes the most important room in the hospital—the food room. Here the formulas are prepared, each one different for the family of forty to fifty babies. The cereals, vegetables and prunes are also prepared here. This room is conveniently furnished with a large electric refrigerator, a bottle sterilizer, special sinks and work tables. The food room leads into the main kitchen through the butler's pantry. The main kitchen is a large, light, airy room where the staff food is prepared.

On the second floor is the Fannie Bond Trussell Memorial, an admission nursery that takes care of five babies. Here babies are kept for ten days after admission. Back of this is an isolation nursery where very ill babies or babies with any infectious condition may be kept by themselves. The hospital does not take contagious cases, but like all infants' hospitals, it is sometimes caught unawares.

During 1930 the operating room was completely equipped, largely through the efforts of a local women's organization, the Thought and Work Club of Salem. This room is provided with all the essen-

tials for surgical work, including a specially constructed operating table, instruments and cabinet and a sterilizing outfit. The latter includes a pressure autoclave, instrument sterilizer and water still, all electrically run.

Across the hall is the Lydia Lee Memorial, the private nursery, where any physician may take care of his own patient medically. This is an attractive room with four cribs, a dressing table and several clothes cabinets. The general color motif is pink and white. In front of this room is the Robert Lovell Little premature nursery where the tiny

babies may have the warmth so essential to their welfare. This room is fitted with an electric bathing table which warms both the clothing and the bathing slab. The cribs in this room are especially attractive. They are trimmed with dotted Swiss canopies topped by a pink bow. The window draperies of the same material give an air of daintiness to the room.

Four Sources of Income

The nurses' home is a large wing built on to the hospital proper. Here are accommodations for fourteen pupil nurses, four graduate nurses and the superintendent of the hospital and her assistant.

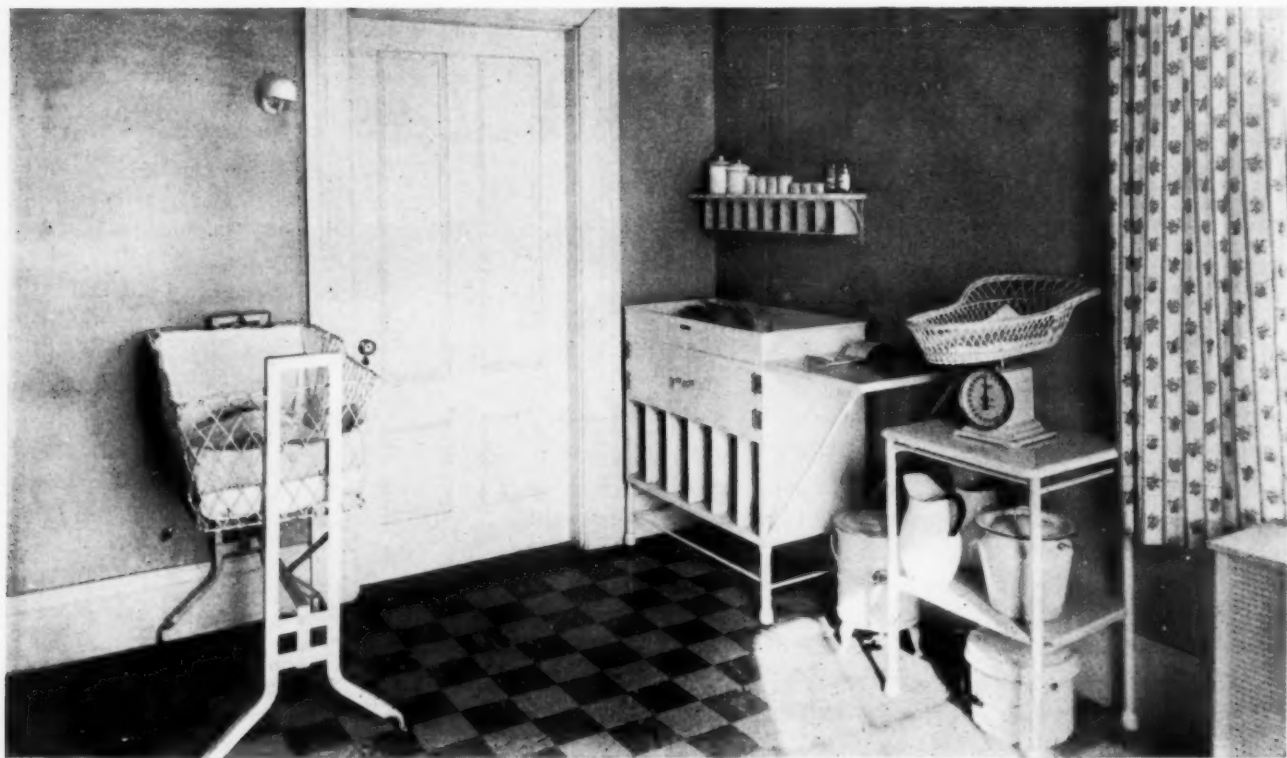
The North Shore Babies' Hospital has four sources of income: One from the amounts paid by the patients which provides about \$4,500 annually; one from the invested funds; one from the contributions that are received from interested persons and one from the Thrift Shop. This shop turns over all its proceeds to the hospital. The articles and goods that it sells are donated, so whatever is made is almost entirely clear profit.



The work of the North Shore Babies' Hospital is one that should appeal to every person. Except for an infants' hospital in Boston, it is the only hospital for babies in New England. It is through organizations of this kind that the infant mortality of the country is being lessened each year, and healthy strong children are taking the place of

the former undernourished and sickly youngsters.

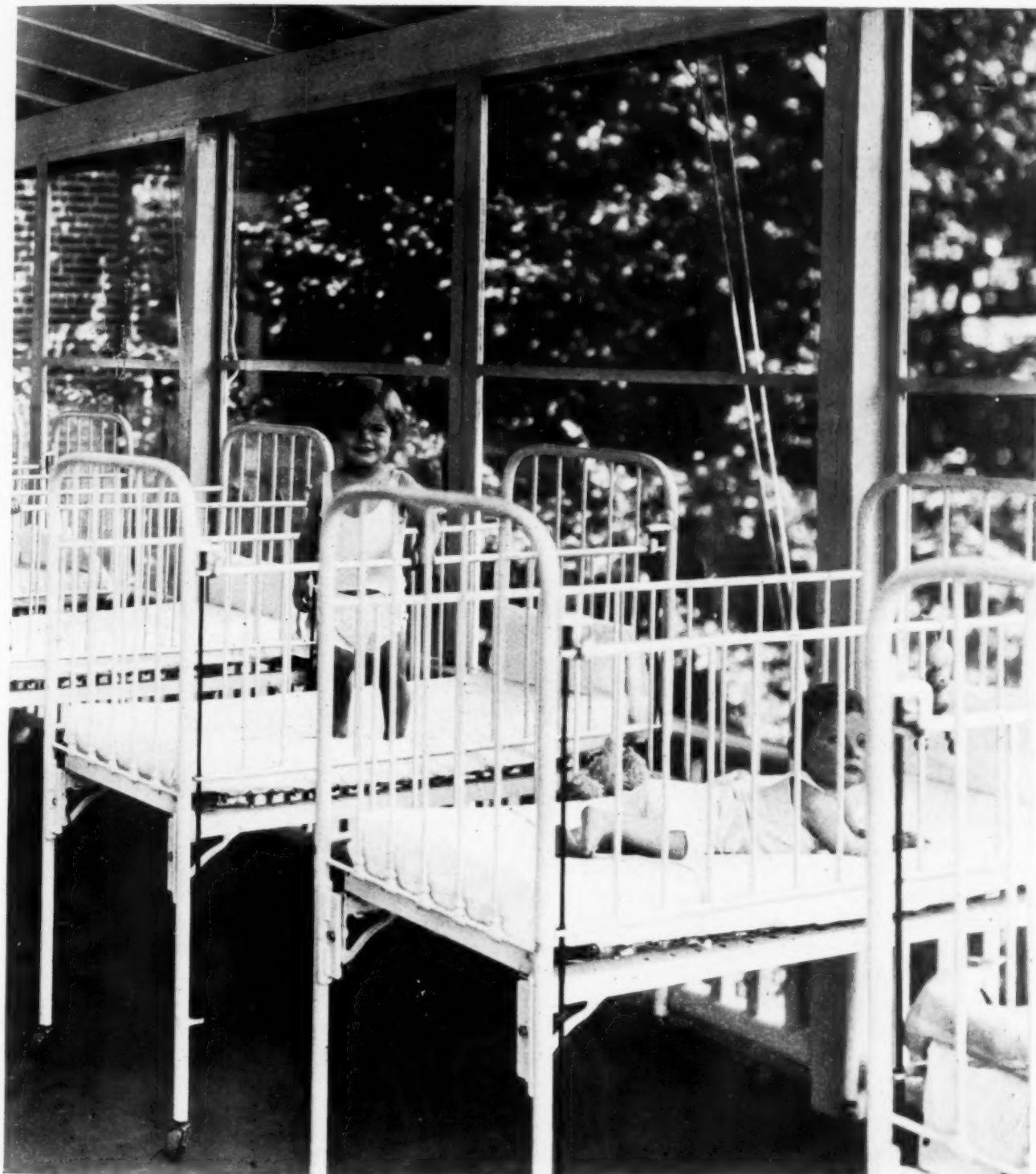
Babies are admitted to the hospital from the day they are born up until two years of age, and no patient is ever turned away because of the parents' inability to pay. The full rate of board is \$10.50 a week. Few parents pay all of this, while many pay as little as fifty cents. Last year of the total of



Pink and white is the color scheme of the private nursery, pictured above. In the admission nursery, shown in the lower picture, babies are kept for ten days after admission.

11,817 days' care, 4,090 days were given absolutely free. The rate for the private nursery is \$21 a week. The service offered by the North Shore Babies' Hospital is not restricted to Essex County. The only requirement for admission is a physician's statement that the baby is free from any symptoms of contagious disease and is in need of the type of hospital care that this institution provides.

The active staff is composed of five physicians who serve for two months in rotation. This plan gives each doctor varying months of the year. This staff is assisted by a consulting and an advisory staff. The doctors are selected for the most part from the territory that the hospital serves. The surgical facilities of the hospital are offered to any surgeon on the active staff of a recognized hospital.



During the warmer months of the year the young patients spend many happy and healthful hours on the outdoor porch of the hospital.

A board of managers, consisting of thirty-five members selected from various towns of the North Shore district, governs the hospital. In addition there are four men elected by the board of managers who together with the treasurer serve as a finance committee. The officers are: Bayard Tuckerman, Jr., South Hamilton, president; Mrs. Charles F. Ropes, Salem, first vice-president; Ruel P. Pope, Beverly, second vice-president; Josiah H. Gifford, Merchants' National Bank, Salem, treasurer; Ralph A. Punchard, Salem, assistant treasurer; Mrs. Edward F. MacNichol, Wenham, secretary. Edward F. MacNichol, Wenham, is counselor.

The administration of the hospital is in charge of the superintendent, Dorothy Smith, and an assistant superintendent, Sarah P. Schafer. The assistant superintendent also acts as superintendent of the training school. Sixteen affiliated nurses are given a three months' course in pediatric nursing during the year. A nine months' course is also given to young women wishing to become trained nursery maids. The practical experience obtained from this course is of inestimable value to any girl.

How Citizens of Grinnell, Iowa, Save Money on Their Hospital Bills

A hospital insurance plan that saves money for its subscribers, that protects them against having a burdensome bill to pay and that encourages more persons who need hospital care to obtain it has found great favor with the citizens of Grinnell, Iowa, where it has been in effect for the last ten years. The plan, which is described in the *Farmer's Wife* for May, is said to be the only one of its kind in the rural United States.

The article describes the plan as follows:

"Under the terms of the plan the insurance holder pays \$8 a year and in return receives three weeks' free hospital care, including board, room and regular nursing, but not the fees for the operating room, the delivery room, x-ray and laboratory work, dressings or a special nurse. In confinement cases the service is limited to two weeks and there are additional charges of \$10 a week and \$1 a day for the baby. The total bill for an obstetric case, therefore, is about \$47.50, or a little more than half of what it would be otherwise. An extra charge of \$10 a week is made for contagious diseases.

"If more than one member of a family is insured, the rate drops to \$12 for man and wife, \$5 for one child and \$2.50 for each additional child. Thus the cost for a family of four is \$19.50, or about 1.3 cents a day for each person. Students in Grinnell College are insured for \$5 a year.

"Patients are admitted to the hospital and discharged from it on order of their physicians.

"The insurance goes into effect fifteen days after it is bought. A person foreseeing an illness may therefore take advantage of the plan in time.

"Last year the insurance was bought by 316 persons representing 250 families and by 200 college men. Practically a third of those who were insured were in the hospital. Without the insurance their bill would have averaged \$78. With the insurance the cost was about \$40.

"The hospital benefited in that it had a dependable volume of business that was paid in advance, and because it was paid the institution made a small profit."

Three Recent Contributions to the Study of Medical Costs

Miscellaneous contributions recently published by the Committee on the Costs of Medical Care include a study of the cancer program of Massachusetts, a chapter on medical care from Robert S. and Helen Merrell Lynd's study on "Middletown," and an article by Dr. Michael M. Davis, director for medical services, Julius Rosenwald Foundation, entitled, "The Need for Competent Hospital Directors."

Dr. George H. Bigelow, commissioner of public health for Massachusetts, describes how the state has extended its cancer service because of an insistent demand on the part of the citizens. As the result of a vigorous campaign against cancer, it is estimated that more than 80 per cent of those who have cancer have been seen by physicians.

The Lynds' study points out that although some fifty "Middletown" doctors have much idle time, the city's 38,000 inhabitants, most of whom have some physical defect or condition needing correction, rarely receive adequate care. Instead they rely in large measure on patent medicines, on advertising quacks or on "ancestor wisdom."

That adequate training for leadership in hospital management is essential if the efficiency of hospitals and the scope of their usefulness are to keep pace with their recent unprecedented growth, is the thesis of Doctor Davis' study. Although hospitals in the United States now represent a three-billion dollar investment, no systematic training for hospital administrators is available. The fundamental present need is for an institute in hospital and clinic administration, says Doctor Davis. Curricula in hospital administration under university auspices, adapted to undergraduate students, are also needed in several parts of the country.

Swimming as a Therapeutic Aid in Negativism

By JOHN EISELE DAVIS, M.A.

Senior Physical Director, U. S. Veterans' Hospital, Perry Point, Md.

IN THE gradual evolution from the mental institutions of the past, devoted largely to custodial care, to the modern hospitals providing scientific medical treatment, many new modes of therapy have been introduced, for both specific and general purposes.

While the broad principles of occupational therapy and physiotherapy regimens have been accepted by hospital administrators to-day, both program and technique are being subjected to research and experimentation to determine relative values. As a result of many factors, particularly the World War and the modern emphasis upon the scientific physical approach to mental health, a department of physical education entered the field and now after ten years there appears to be a substantial basis for an evaluation of its worth as a coordinate therapy. Generally it may be said that a comprehensive program of physical education attacks the negativistic tendency of the majority of regressed psychotic patients and arouses the primal play instinct, which stimulates rational conduct and redirects these fundamental physical expressions into purposive activity.

Inactivity of Regressed Mental Patients

The specific problem that I shall discuss relates to the regressed mental conditions, particularly the dementia praecox group, many cases of the dementia paralytica type, the manic-depressive, particularly in the depressed phase and many of the hysteria neuroses, resulting in fixed, stereotyped, muscular positions. The problem may be stated very simply. Many of the regressed patients are characteristically inactive. Their motor processes, especially those involving the accessory muscles, are gradually restricted and in many cases are transformed into uneconomic, bizarre, stereotyped movements or positions. In other cases these movements are expressed through symbolic representations which generally take the form of a further restriction, and in other cases these accessory movements are periodically discontinued entirely. There is a further involvement in some cases of the large muscle areas resulting in the re-

striction of walking, bending, reaching and other forms of movement. While nonorganic, a progressive condition is often presented. These patients gradually lose the ability to dress and feed themselves. They become progressively untidy and neglectful of habits of evacuation and voiding; special attendants are needed to look after them and a definite economic problem is presented.

Preliminary Procedures

This paper offers a technique for the specific purpose of promoting physical and mental adjustments in these patients so that they regain the fundamental habits necessary to a comfortable vegetative existence. The results achieved demonstrate that this treatment is not a panacea for all cases, but it is believed that it has a tendency to break down specific negativism.

As a preliminary procedure it is of course necessary to review the clinical data relating to the physical and neurologic examinations. From this information and through careful observation and tests an adequate idea of the patients' organic efficiency, cardiac efficiency, mental diagnosis, delusionary or hallucinatory field, motor inhibitions, posture, body mechanics, weight index, strength, endurance and probable improvement or retrogression may be obtained. His sensory capacity—visual, auditory and sense of timing—should be noted. While a careful study of all these factors is practically impossible with the present training of the therapist and the lack of suitable appliances and standardized technique, the therapist may well look forward to the day when these factors will be scientifically evaluated and will be available in the clinical fields. It will be found of value also to study the patients' motor intelligence or motor educability, since these capacities provide the field for the reeducative process. From the social history, in addition to personal observation, the therapist may also learn something of the patients' past motor achievements, possibly effective special techniques, past motor interests and motor adaptability. While all this provides the ideal composite therapeutic picture,

it is of course not anticipated that the instructor will be able to evaluate exactly and to correlate this material. Much of it, however, can be utilized with the expert advice of the ward surgeon, the psychiatrist and the technicians.

In determining the motor educability of the regressed patient, his reaction in most instances will be found to exceed what we might expect from his apparently limited motor capacity. I have found unusual motor capacity in many of these regressed types and a fair capacity in the majority who have lost such fundamental habits as dressing and self-feeding.

In enlisting the regressed patient in this specific therapeutic treatment, we may well follow an old procedure of proved value. I believe that the therapist who attempts a direct attack upon the problem wastes his time, for example, by placing a spoon in the patient's hand and forcibly directing the hands to produce the motor activities necessary to the act or by the less direct procedure based upon the principle of imitation. The indirect method, which aims at the production of rational parallel conduct, appears to be the most effective course. If the patient has learned to swim before the onset of mental illness, I believe that this provides the ideal therapeutic reeducative medium. It may be of interest to note in this connection that many regressed patients who have not learned to swim before the onset of mental illness can be taught to swim. In the general reeducative process, Franz differentiates motor, sensory and delayed reaction habits. The motor habit can be briefly described as "that reaction which invariably follows upon a given stimulus of a general character." The sensory habit involves a differentiation of stimuli and the delayed habit reaction does not follow the stimuli immediately. The fundamental motor habit is what we are attempting to reestablish in the regressed patient. The establishment of these habits involves first of all some understanding of the reason for the patient's refusal to eat or to perform other natural acts. If in the regressed, negativistic patient the reason is psychogenic, the increased physical activity and the phylogenetic psychical qualities often combine to break through the cycle of inactivity.

Determining Psychogenic Reactions

Through psychologic experiments Lowenstein arrived at valuable conclusions relative to the patient's tendencies for psychogenic reactions. He found a tendency to psychogenic reactions in 44 per cent of epileptic patients, in 54 per cent of healthy persons, in 73 per cent of those with paranoid forms of schizophrenia, in 90 per cent

of catatonic patients, and in 96 per cent of hysterical patients. He terms this tendency to psychogenic reactions "a reactive-labile constitution."

The organic cases present a definite causative factor that indicates well established medical procedures and are without the scope of this article. The therapist will be surprised, however, at the many apparent organic conditions which through this swimming therapy are found to be forms of hysteria and are highly susceptible to psychogenic reactions.

Causes of Muscular Dysfunction

While the available literature upon the purely physiologic causes and effects of progressively arresting inactivity leading to muscular dysfunction is voluminous, there is a wide and discouraging variance in both the opinion and the results achieved. I have been impressed with an apparent basic difference in the passive motility of the joints of a segment held in a fixed stereotyped position as the result of hysteria, for example, and the joint rendered relatively immobile as the result of a strained deltoid, an acromioclavicular sprain or similar conditions resulting from a purely physical cause and not primarily the result of a psychosis or a neurosis.

Some plausible basis for a scientific explanation of this difference in motility is found in the recent experiments conducted by Simon Benson in the department of physiology of the University of Chicago. In the comparison of the results of diathermy, whirlpool and hot air treatments on stiffened joints due to athletic injury, he finds that hot air produces 14.5 degrees of motility, whirlpool, 8.9 degrees and diathermy, 1.5 degrees. He goes on to explain that the electrotreatment producing a high frequency current has the adverse effect of stimulating muscular rigidity. He does not venture an opinion as to the muscular or neuromuscular nature of the process or whether it is direct or reflex. He finds that there is increased mobility due to heat treatments with the hot air and whirlpool methods and explains the result as follows: "The heat produces a vaso and muscular loss of tone or in general a loss of tone in the tissue structure. Then, with this loss of tone present, the blood and other body fluids which are constantly under pressure naturally flow into this region of least resistance. Similarly, this loss of tone of the tissue gives them greater elasticity which, in turn, allows greater motility." As the result of these carefully conducted experiments there seems to be much in the modern concept that "it is only through a general loss of tissue tone in the part treated" that we may produce increased motility.

These findings in relation to stiffened joints due primarily to physical causes have a special significance in the treatment of localized arrested muscular activity which is the result of a psychosis or a psychoneurosis. I believe that these cases should be given careful individual study and that the motility of the affected segment should be studied primarily from the standpoint of the psychologic causative factors involved. These include the affective, associational and secondary delusional and hallucinatory creations of the patient. This evaluation should be secured from the attending psychiatrist. Next should come the study of the purely physical field including the degree of active and passive motility of the joint, the relative imbalance of the flexors and extensors and the contractures.

My experience indicates that many of the stereotyped postures leading to muscular rigidity as the result of mental illness produce a localized loss of tissue tone in the inactive joint which can be successfully attacked upon the basis of the findings of the experiments conducted at the University of Chicago. In general the muscles are flaccid, there are no exudates and there are no appreciable swelling and vasodilatation. The therapist will be surprised to find that he can produce a fair degree of motility in these joints by passive manipulation if he can temporarily redirect the patient's attention away from the psychic cause. I have often flexed a joint held immobile over a long period as the end-result of a delusion, by pretending forcibly to extend another segment and thus diverting the patient temporarily from his inhibition.

Providing Oral Psychiatric Treatment

While there is undoubtedly a wide field of psychotherapeutic treatment that is being increasingly utilized in these cases, it has generally taken an oral form, that is, the psychiatrist utilizes the favorable attitudes of the patient and from time to time during talks with the patient emphasizes the elements in his makeup that are favorable towards an initial or more complete use of the restricted segment. Anyone who has attempted through such suggestive measures to break down these stereotyped positions soon realizes the intricacy of the problem. Dr. William A. White, medical superintendent, St. Elizabeth's Hospital, Washington, D. C., has frequently called attention to the advisability of approaching the general problem of psychotic conduct from the psychologic level, with emphasis upon social and humanistic contacts. The negativistic character of the patient's motor reactions must be attacked from this angle if the therapist is to achieve a fair

measure of success. As has been indicated a thorough individual study of the patient must be made and the relative psychic and physical factors involved in these observations of negativism studied. It will be found generally that the physical factors are almost negligible residuals of the provocative mental states. The abnormal personality of the patient thus offers us the field of action.

In this study, however, it is manifestly much easier to inquire why the patient does not eat, does not dress himself, is untidy and has stereotyped positions than to elicit an intelligible or exact answer from the patient or to resolve this question ourselves.

How to Determine the Therapeutic Medicine

Contemporary literature on this subject is meager and affords little assistance. In view of this fact and as a result of actual experience I believe that the introduction of a parallel course of conduct which is acceptable to the patient provides an advisable starting point for this reeducative procedure. Such an offsetting parallel field must of course be discovered in the personality of the patient. The most influential factors are his peculiar likes and dislikes, instinctive cravings, strong unconditioned responses and, as Doctor White reminds us, his life goal. The instinctive urges provide an effective therapeutic medium for the production of this parallel stream of conduct, which by a process of substitution may ultimately exert a favorable effect in mitigating the undesirable negativism.

After the patient is thoroughly studied for the purpose of determining his therapeutic level, he is instructed to undress himself. If he cannot do this, the attendant undresses him and gives him a shower as a preliminary step to the pool therapy. The temperature of the dressing room should not be less than 2 degrees lower or more than 8 degrees higher than the temperature of the pool, which should vary from 20 to 80 degrees, depending upon the individual patients and the specific reaction desired. It is of course necessary that the water should previously be purified by violet rays or chlorine so as to kill bacteria. It should also be refiltrated to remove hair, dirt, urine and other solids that are not removed through the scum gutter. From the standpoint of sanitation and space necessary for free movement there should be a minimum per bather of 500 gallons of filtered and sterilized water, although some state regulations allow as low as fifty gallons per bather if the water is chlorinated. Nonslippery tile should lead from the shower room to the pool. Floors, benches and all woodwork with which the bathers come in con-

tact should be washed daily with a strong solution of chlorinated lime or chlorinated soda to prevent the spread of foot infections. While there are no authoritative statistics available it is a logical presumption that the regressed patient, because of his lowered physical vitality, would be particularly susceptible to infection from the pool, dressing room or shower room.

When the patient is brought into the room containing the pool, he sees the attendant wading at the lower end and gradually wading to the deeper end and then swimming. Psychotherapeutic measures are further employed to reassure the patient that the water is warm, properly purified, that he will not be forced into water over his head and that he will not be ducked under the water, the underlying idea being to reassure him and project a friendly, helpful atmosphere that will result in his cooperation. The patient then enters the pool. The far regressed individual will most frequently wade in a slow cautious manner, avoiding the deep end of the pool. As he enters the pool day after day he may be prevailed upon to extend his incursions into deeper water. The attendants often stimulate this increased activity by walking with the hesitant patient and leading him gradually into deeper parts. As the patient finds himself in water up to his neck, if he has learned to swim before the onset of his disease he may suddenly and unexpectedly strike out and swim as if impelled by the powerful instinct of self-preservation which temporarily overcomes his deep-seated, negativistic conduct. Once the initial effort is made the patient will in many cases condition his activity by overexertion and underexertion and will rarely lapse into negativism while in the pool. The therapist must grade his activity in relation to his physical capacity and psychic motivation. There may be days when he does not desire to enter the pool but can offer no conscious reason for this. It appears advisable to regulate the time in the pool from fifteen minutes to an hour, depending upon the individual case.

Some Results of Water Therapy

A special study was made of twenty-four patients who were subjected to this active water therapy at the U. S. Veterans' Hospital, Perry Point, Md. These were dementia praecox patients, with the exception of one who had encephalitis lethargica. Ten were catatonic and twelve were hebephrenic types. Before the application of this therapy seven patients were tube fed and four were spoon fed; two patients had been receiving continuous tub treatments for months and sixteen were untidy in appearance. After two months' treatment, according to the nurses' notes and the

ward surgeons' records, eighteen out of the twenty-four showed distinct improvement. All these patients were less disturbed and slept better. Those who had been spoon or tube fed were able to feed themselves, all were able to dress themselves and this was done in most cases with despatch. One patient adopted a stereotyped position of the right arm which proved to be due to hysteria and the limb was restored to normal function through swimming therapy.

Two Typical Cases

Patient X was apparently incapable of the simplest motor movement. He was dejected and forlorn and said he had a cancer of the hip, which hindered him from walking. He could not be enlisted in any form of activity on the ward and had to be spoon fed over a period of months. When brought into the pool room he slowly approached the diving board and executed a dive that approached mechanical perfection. During the execution of this dive, the jumpy, tremulous and dis-coordinate leg movement that characterizes his walking was entirely absent. After two weeks in the pool, this patient fed himself, but still retained the peculiar constricted movements of the leg when walking.

Another patient presents an interesting case. His neurologic examination disclosed the following: The pupils were regular in outline and responded to light and accommodation. The left side of the face drooped; the facial expression was blank. The patient would not protrude the tongue and it was impossible to test for speech defects as he was mute. He would not cooperate for incoordination tests such as the finger-finger, finger-nose, heel-knee and heel-toe tests. He was able to stand erect in the Romberg position without swaying, but would not close his eyes. No Babinski reflex or ankle clonus was elicited. In the latter test he was resistive. The gait was slow and uncertain. It was impossible to test for anesthesia. He did not have incontinence of feces or urine. He held his left arm and hand in a fixed position and dragged his left leg when he walked. He had the appearance of a person with a partial left hemiplegia. There was no atrophy or disturbance of circulation.

The diagnosis was dementia praecox, catatonic type, and mild hemiplegia on the left side. According to the ward records this patient refused to sit down, refused to keep a hat on for a period of two years and refused persistently to eat. After taking the swimming exercise he sat down voluntarily, whereas formerly it required the efforts of two or three attendants to seat him. He now feeds himself.

Just what the causative factors are that have brought about this change resulting in the tendency toward the restoration of the vegetative reflexes and other habits necessary to the fundamental reactions of living is not known. Certain general observations may prove interesting and perhaps informative. First, immersion in the water with concomitant physical activity creates an increased metabolism. Hawks found that in short swims lasting from a half minute to three minutes there is an increase of 22.5 per cent in peripheral red corpuscles and of 46.1 per cent in leukocytes. There is thus produced an increased capacity for motor activity during and immediately after the swimming exercise. In this connection there are also, of course, the general sedative and eliminative effects and the stimulative results upon the nonstriated or involuntary muscles.

Upon the psychic side there is the constant stimulus to action resulting from immersion in the water. Stanley Hall reminds us that "the exercise of swimming is unique in that nearly all the movements and combinations are such as are rarely used otherwise and are perhaps in a sense ancestral and liberal rather than directly preparatory for future avocations." There is undoubtedly a strong phylogenetic satisfaction resulting from this hydrotherapeutic exercise. The motor processes necessary to the act of swimming are simple and afford opportunity for many compensations for motor deficiency as well as for a lack of psychic motivation.¹

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Twenty Veterans' Hospitals to Share in Congressional Appropriation

Every effort has been made to give priority to projects that would furnish to veterans additional hospital and domiciliary facilities where they are needed most urgently, Brig. Gen. Frank T. Hines, administrator of veterans' affairs, stated recently in announcing the allocation of \$20,877,000 appropriated by Congress for construction of new hospitals and improvements in old ones.

The projects determined upon with the approximate amounts involved are as follows:

Sunmount, N. Y.—New nurses' quarters and

remodeling present quarters to give 100 additional beds, \$130,000.

South Carolina—New 300-bed hospital with regional office facilities, \$1,300,000.

Huntington, W. Va.—To bring capacity to 200 beds, \$150,000.

Helena, Mont.—New infirmary building, central heating plant, kitchen additions, \$330,000.

Rutland, Mass.—Tiling of main kitchen, a new warehouse, rearrangement of x-ray equipment, and addition to recreation building, \$180,000.

Milwaukee, Wis.—New 350-bed barracks, \$300,000.

Johnson City, Tenn., and Oteen, N. C.—One hundred hospital beds and 350 domiciliary beds at Johnson City, and 240 beds at Oteen, N. C., \$650,000.

Tuskegee, Ala.—Two hundred domiciliary beds, \$200,000.

Chillicothe, Ohio—Three hundred additional beds, quarters and other improvements, \$600,000.

Walla Walla, Wash.—New kitchen and mess building, \$105,000.

Hartford, Conn.—Recreation building, additional double staff quarters and single set quarters for medical officer in charge or manager, \$137,000.

Aspinwall, Penn.—Two hundred general beds, \$580,000.

Eastern branch, National Homes, in vicinity of Togus, Me.—Replacement hospital facilities, \$750,000.

Wichita, Kan.—New 150-bed hospital and regional office facilities, \$750,000.

Lexington, Ky.—Recreation building, additional double staff quarters, and single set quarters for medical officer in charge or manager, \$115,000.

Augusta, Ga.—New clinical building, kitchen addition and quarters, \$400,000.

Lincoln, Neb.—Recreation building, additional double staff quarters, and single set quarters for medical officer in charge or manager, \$110,000.

Danville, Ill.—New hospital facilities, 300 beds, \$500,000.

Indianapolis, Ind.—New nurses' quarters, \$45,000.

Woman Physician at Head of London's Hospitals

A woman physician, Dr. Florence Barrie Lambert, will control London's one hundred metropolitan hospitals and its city ambulance stations, totaling some 50,000, with an annual expenditure of \$200,000,000.

¹This article is published by permission of the U. S. Veterans' Bureau, which assumes no responsibility for the opinions expressed.

Training Future Executives by the Preceptor Method

By J. J. GOLUB, M.D.

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A CURRENT misconception exists regarding the function of a school for hospital executives. This misconception is revealed by a study of the various factors that must necessarily enter into the education and training of hospital administrators.

The problem of a large turnover of hospital executives amid an increasing growth of hospitals is an ever growing one. Many of those engaged in administrative work do not stay long in one hospital and following a brief tenure disappear entirely from the hospital scene. There are executives, formerly or now superintending hospitals, whose tastes and talents do not lie in the direction of hospital management. Some have defaulted not because of inability but rather because of leanings toward some other work. Many who are unfit accept, and for want of a better choice—occasionally in the face of a better choice—are given important hospital positions.

Courses in Administration Discontinued

During the last ten years, five complete courses and nine short courses in hospital administration have been started with a view to enlarging the educational sphere of hospital men and women and of those newcomers who are seeking hospital knowledge "to light them on their dim and perilous way." Dr. Michael M. Davis, director of medical services, Julius Rosenwald Fund, reports that for varying reasons all of these courses have been discontinued. He makes the constructive suggestion of the need of a research institute in hospital and clinic administration.

Many of the courses seriously concerned themselves with this important matter. They indicated for a time not only a vision but a realization of a new branch in the present varied program of education. But not one of the schools has, according to available information, shaped itself into any definite form.

Experience is readily obtainable, and education, broadly speaking, is purchasable, not only by monetary means but essentially by zealotry and hard work. Training in any field embodies the two—

experience and education. Presumably, that is precisely what the schools purposed to accomplish. The programs were ambitious and their realizations at best speculative.

The observation must be permitted that certain occupations, of which hospital management is an outstanding example, demand as prerequisites certain fundamental qualities, such as character, personality, humaneness, originality, sociability, vision and tact. They are rarely revealed by written examination and are only occasionally detected through lengthy and repeated interviews and contacts. Here we are concerned with the deeper structure of man rather than with his educational mantle.

These personal qualities cannot be transferred from teacher to pupil. Education brings knowledge and experience strengthens it, but the absence of most or all of these "noncommunicable" factors makes the task of becoming a desirable executive insurmountable. The possession of the "noncommunicable" qualifications alone, without knowledge and experience, renders the path to be traveled indeed difficult, but is a lesser handicap. The fact that neither alone satisfies makes the distinction and its implications important. The rarity of their combination is responsible for the scarcity of good superintendents for the exacting work of hospital direction.

Wherein Lie the Elements of Success?

There is the striking example of the president of a large bank who early in life had no opportunity to attend school, but who later rose to that position by the possession of many of the "noncommunicable" factors, admirably augmented by the knowledge he gained and the impetus he derived from reading only one book, "Wealth of Nations." Against this there are examples of properly schooled individuals who failed to develop or to continue in the field they had chosen for their life work, such as the chemist, a graduate of one of the finest universities, who to-day peddles vegetables, the poet of rare talent who is now earning his livelihood in the manufacture of caps, and the

scholar, once popular as a stylist in letters and highly cultured in Latin-American literature, who is selling automobile tires. The nonschooled bank president's growth exemplifies the person happily in possession of the much desired qualifications; the default of the amply schooled poet and chemist supports the thought that certain personal qualities must be included along with the proper education.

Besides, the position of the hospital administrator differs decidedly from other important positions in business or in the professions. Based as it is on individual aptitude, deftness and personal qualities, the position is raised only to that height that befits the man occupying it. Here great vistas are opening before him in an environment that is a constant reminder to him that life is short. One is amazed at the fields, the thoughts and the possibilities that the administration of hospitals includes. Those who are conscientiously interested in such work realize the scope of the field so strewn with uncertain byways. The problems the administrator must face are not only perplexing but they vary in their nature and are unyielding to stock solutions and formulas.

Then, again, failures in calling do not come so readily to the front when the work requires dealing solely with individuals. Osler's "forty-visit-a-day" financially successful physician can, in spite of the adage, fool almost all of his followers during his active life. This is partly explained by the fact that the practice of that type of physician is usually among certain strata of the populace upon whom he preys. Far more significant, however, is the fact that his contact is with individuals. His reputation with groups is often quite different. Professional activities that require their performers to deal with groups present an entirely different situation. Groups are more difficult to confront. Combined minds crystallize complexities to a clearer view than the single mind, and individuals doing important work, or merely occupying important positions are seen in a true light. They immediately become known for their worth.

Dealing With Groups

Hospital executives deal with groups chiefly—with many minds in one group—which listen and look for guidance. First, it is the board of trustees and its committees; then it is the medical board and its committees; the personnel may also be considered as a group, especially those who occupy positions of a professional nature. They are cultured persons, able to do important work; they judge, look for and admire leadership. And last, but equally important, are the outside agencies with which the hospital executive must come in continuous contact.

The exacting strain of such contacts and the great need to establish and maintain congenial relationships with groups demand a genuinely impressive and natural attitude, set in motion by the "noncommunicable" qualifications, which become invaluable treasures when joined to the executive's general and specialized education. When recognized or even merely detected, they are qualifications much to be preferred to those that beget a flushed desire to do hospital work brought on by a monetary fever to serve humanity. In this case the emotions run far ahead of the reason and doom the attempt to failure.

Great Pupils of Great Men

In other days, great men, particularly those of marked achievement in music, art and medicine, had great pupils. Often such pupils later developed even greater genius than their masters. History is replete with such examples. In music we find that Rimski-Korsakov was attracted to Balakirev, the great teacher of whom it was said that "He was endowed by nature with a sense of correct harmony." As far back as late in the fifteenth century Raphael Sanzio, the greatest of painters, about whom his contemporary Vasari wrote, "If one desires to see clearly how generous Heaven sometimes is in accumulating on one person the infinite wealth of its treasures, all those graces and rare endowments which are commonly scattered among several during a long period of time, let him contemplate Raphael," entered the school of Il Perugino, the early master painter of the Sistine Chapel immediately preceding Michelangelo. Edward Jenner, the father of preventive inoculation, was a pupil of John Hunter, a truly great teacher. "Don't think, try; be patient, be accurate," Hunter advised Jenner when the pupil consulted his teacher on his contemplated experiment with variola vaccine.

The one man school of the artist and scientist of the day gone by attracted men of no uncertain quality. They sought and gravitated to the masters. The lure of art coupled with natural qualifications and talent, drove these men to seek the privilege of serving a master.

The great teachers in the finer arts and sciences were not only geniuses in their respective fields, they were equally great in possessing keen intuition that enabled them to select pupils of rare minds and unusual talents. They knew that it is an easy task to instruct a pupil who has a receptive mind and a well defined liking for the subject taught. Such a pleasant task differs utterly from the usual method of gathering students from all corners and teaching them under a standardized curriculum. The process of educating hospital executives or

any kind of executives cannot be in the form of a calendar into which are drawn men and women of certain texture and tender hearts, to be pressed, rolled and polished to standard shapes and lasting gloss; humans do not take to standard patterns or permanent luster.

We moderns should remember that the ancients were moderns in relation to their predecessors and many of the practices of old withstood the test of all generations. One lesson that should be learned and its advantages acknowledged is that the one-man school with one master and one or more pupils is an unexcelled way of producing masters in any field.

Shall we not then say that the hospital field is especially fitted for a greater extension and a wider introduction of this method of developing hospital executives? We have a few master hospital executives in as many good hospitals. Should they not increase their usefulness by attracting and teaching more executives? Master executives project a strong magnet that attracts to them not only men and women of academic brilliance but men and women (and this is far more important) in possession of the "noncommunicable" qualities here discussed.

More men and women should be given positions as assistants to the master hospital executives in the larger hospitals. They should serve on a well planned, graded and rotating departmental service, not necessarily in place of existing department heads but in cooperation with them, on a definite schedule of so many months in each department. The length of service should vary from three to five years and at the end of such apprenticeship they will be ready for independent and important hospital administrative positions.

Survey of Radiologic Service Reveals Interesting Facts

Interesting facts are presented in the survey of the radiologic service in the United States made by the Council on Medical Education and Hospitals, American Medical Association, and published in the *Journal of the American Medical Association*.

For every six roentgenograms made, one roentgenoscopic — fluoroscopic — examination is performed, thus emphasizing the importance of roentgenoscopy.

About one-third of all the roentgen therapy performed is of the short wave or so-called "deep" therapy type.

For every ten diagnostic procedures carried out,

there is one roentgen ray or radium treatment given; or, approximately 10 per cent of all the work done in the specialty—exclusive of spectral therapy and diathermy—is roentgen and radium therapy.

About half the directors of radiologic and roentgenologic departments or laboratories had more than ten years' experience; one-third had from six to ten years' and one-tenth had less than five years' experience. Those who are lacking in special training are advanced in experience, since almost 90 per cent have had more than five years' experience.

Safety measures are practiced by all the departments covered by the survey.

More than half the equipment is individually owned and less than a third is owned by hospitals.

The majority of the departments have special libraries, with an aggregate of 33,463 volumes.

There is also published in the *Journal of the American Medical Association* a tentative list of physicians conducting approved laboratories or departments that perform radiologic or roentgenologic work.

Why Whisky Supply Should Be Carefully Scrutinized

The superintendent of the hospital should frequently scrutinize carefully the amount of whisky that is being used in the various departments of his institution. If he is medically trained, from time to time he may inspect the charts of patients to learn whether there is a therapeutic need for the whisky.

When too great a quantity of whisky is being employed by any individual chief, it certainly becomes the duty of the superintendent to discuss this matter with the physician concerned. It is, indeed, an embarrassing position in which the hospital finds itself when the good faith of the institution is questioned by the representatives of the Federal department appointed to supervise the distribution of alcoholic liquors. It is surprising, moreover, with how little alcohol the medical and surgical departments of some hospitals can conduct their work and still apparently not deprive patients of a drug for which they have a real need.

In the last analysis, it is the duty of the board of trustees generally, and of the medical director of each hospital specifically, to check the use of whisky in order to satisfy the Federal agents as to the good faith of the hospital in obeying the spirit as well as the letter of the law regarding the handling of liquor.

How to Plan a Small Hospital at a Moderate Cost

By FREDERICK LEE

Stevens and Lee, Architects, Toronto, Canada

IN visiting the smaller hospitals of the country, one is amazed at the wonderful work that is being done. This fact can be accounted for only by the disinterestedness and devotion of the staff, executives and personnel of the institutions, handicapped as they are by a lack of facilities and equipment that are available to larger institutions.

Although the larger hospitals may give a better quality of service, small hospitals cannot be dispensed with, and they give good service. Very small hospitals, however, suffer under a serious handicap. More often than not they have their beginnings in a gift or purchase of a private residence which has to be transformed into a building to house patients. These houses are naturally not well suited to the purpose in view. The ceilings are not the proper height, the halls are too narrow for transporting patients and food, and the plumbing is ill adapted to the service required.

Remodeling an Old Building

It is difficult to adapt such houses to hospital use. The work may be done at a moderate initial cost but the moment always arrives when it is imperative, on account of a growing community, to enlarge the institution. Then it becomes a serious problem whether it is better to scrap the existing building and start afresh or to try to save what already exists and by additions to expand it to the size necessary to accommodate the growing patient population. This, of course, means an increase in all the departments necessary for the service of the

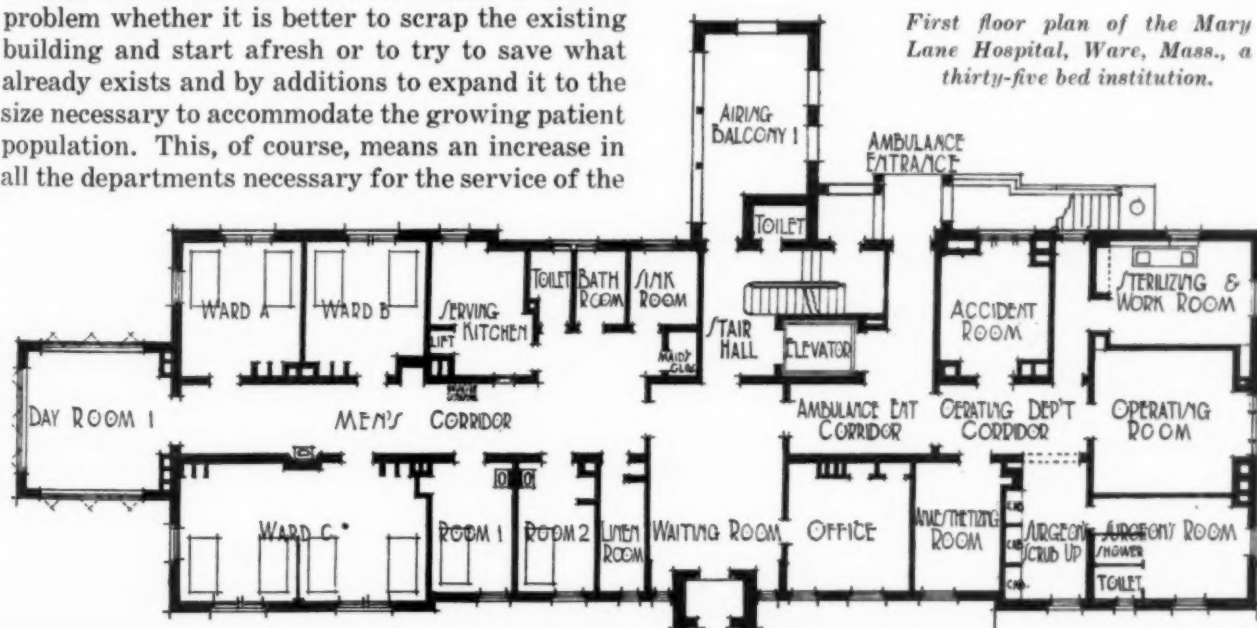
patient, in addition to the increase in the number of beds. Often the results of such remodeling are not commensurate with the expenditure. Each case must be decided on its merits.

I propose to confine my remarks to the small structure of from 50 to 100 beds, built for the purpose of a hospital. I shall assume also that this hospital is an average one, with limited funds, and that the utmost care must be taken to provide what is essential for the patients' care and to avoid expenditure that will not contribute to that end.

In dealing with this subject let us admit at the outset that there is no such thing as a model hospital. We can only strive to reach the ideal by taking into consideration all the factors that affect the problem. No two hospitals can possibly be constructed or run alike. We cannot carry standardization that far.

There are, however, certain basic requirements that apply to all institutions. The small hospital serving a small community must be a general hospital and must receive and care for all classes of patients and all types of diseases, except those which are contagious. Therefore its first requirement is flexibility, that is, accommodations must

First floor plan of the Mary Lane Hospital, Ware, Mass., a thirty-five bed institution.



be provided so that not only may each class of patients be served to the utmost but also that the hospital may be used to its fullest capacity. This naturally will cut down the overhead and make the money saved available for some other activity. If a room can be used for two or more purposes without interfering with the hospital routine, this space must not be assigned for one use only, and thus left idle and nonproductive for a large part of the year.

Choosing a Favorable Site

What should this hospital be like? It must, of course, stand on a suitable site, and the architectural adviser should certainly be consulted on this important point. Consideration has to be given to view, neighborhood, orientation, sewage disposal and water supply, and many other decisions must be made before the style, location and form of the building can be decided upon.

The architectural style should be suited to the numerous window openings that are required. It should be simple, with sufficient ornamentation to relieve any severity of aspect but not so much as to take from it the look expressing the seriousness of the work that goes on within its walls. Much thought should be given to the grounds, a liberal provision being made for gardening and planting

so that the outlook from the patients' rooms may be pleasing.

Noncombustible materials should be used whenever possible, the only exceptions permissible being the doors and windows. Often these are both made of metal. Fire resisting materials, however, owing to their hardness are apt to cause reverberations that produce echoes and augment the necessary hospital noises. I am of the opinion that to combat this tendency to increased noise a generous appropriation for soundproofing should be included in the plans. This is no longer a luxury. It should be considered as essential to the patients' comfort.

The main entrance hall of the small hospital should have a homelike and welcoming atmosphere, for this is the spot where the patients or their friends receive their first impression of the institution. The administrative offices should be easily accessible to this entrance hall, though not too much in evidence, so as to avoid bringing administrative details to the patients' attention. The size of this department will depend entirely on the size of the institution, but there should be provision for the superintendent, the superintendent of nurses, waiting rooms, a general office, if possible a small office consulting room, space for the doctors' coats, a lavatory and a record room.

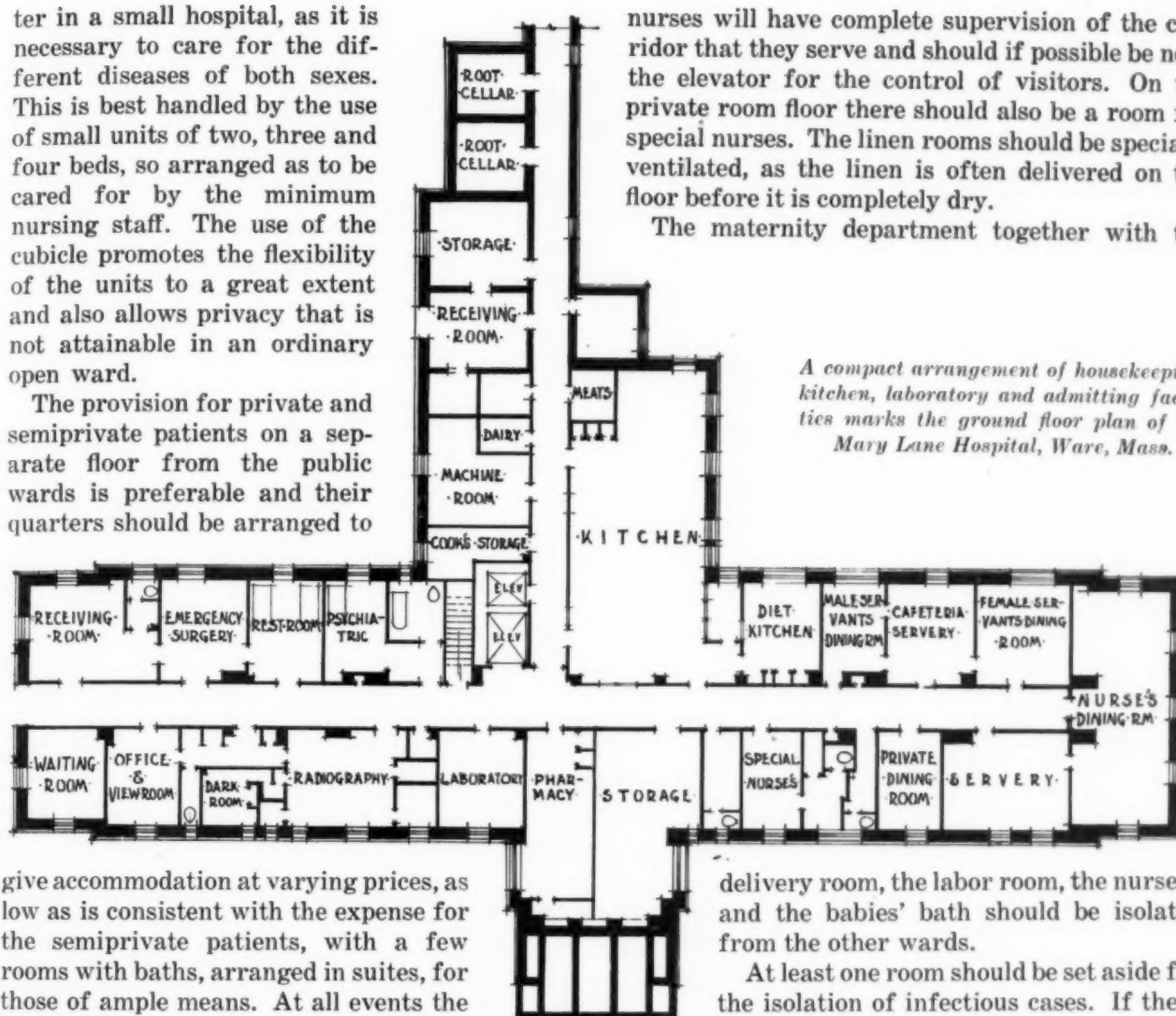
The arrangement of the wards is a difficult mat-



The operating room of St. Francis Hospital, Wilmington, Del., a seventy-bed general hospital.

ter in a small hospital, as it is necessary to care for the different diseases of both sexes. This is best handled by the use of small units of two, three and four beds, so arranged as to be cared for by the minimum nursing staff. The use of the cubicle promotes the flexibility of the units to a great extent and also allows privacy that is not attainable in an ordinary open ward.

The provision for private and semiprivate patients on a separate floor from the public wards is preferable and their quarters should be arranged to



A compact arrangement of housekeeping, kitchen, laboratory and admitting facilities marks the ground floor plan of the Mary Lane Hospital, Ware, Mass.

give accommodation at varying prices, as low as is consistent with the expense for the semiprivate patients, with a few rooms with baths, arranged in suites, for those of ample means. At all events the private rooms should be considered as a source of considerable revenue. The semiprivate wards may also be arranged with cubicles.

All patients' rooms should have washbasins and should be decorated so as to relieve the severity of the treatment of the walls, floors and ceilings necessitated by good hospital practice. This may be accomplished by painting the walls in interesting color combinations and by using washable rugs on the floors and washable curtains at the windows. The use of glaring white can be avoided. The rooms immediately connected with the patients' rooms, such as sink rooms, toilets, cleaners' cupboards, dressing rooms and flower rooms, where considerable plumbing is concentrated, should have tile walls 5 feet high, at least behind the fixtures, with terrazzo or tile floors. The fixtures themselves should be of the best quality with fittings that will stand the wear and tear of hard usage. There should be no attempt to economize on this item anywhere in the hospital, as the upkeep of fixtures is costly.

The nurses' stations should be placed so that the

nurses will have complete supervision of the corridor that they serve and should if possible be near the elevator for the control of visitors. On the private room floor there should also be a room for special nurses. The linen rooms should be specially ventilated, as the linen is often delivered on the floor before it is completely dry.

The maternity department together with the

delivery room, the labor room, the nursery and the babies' bath should be isolated from the other wards.

At least one room should be set aside for the isolation of infectious cases. If there is a children's department it should be so placed that the noise will not disturb other patients. A play room should be provided here. Balconies and solariums must be provided for each floor and can usually be placed at the ends of the building. A north balcony will be found beneficial for the hot summer months. Often the roof is used as a solarium, but if it is so used all ward conveniences should be provided so that the patients will not have to be brought down constantly to their floors for attention, and time and trouble will both be saved.

The size of the operating department, usually on the top floor, should be in proportion to the number of surgical patients the hospital expects to have. If several operating rooms are provided one should be reserved for eye work. The sterilizing room should be easily accessible to the operating rooms, but the dry sterilizing might well be done in a room further removed from the surgeries. The anesthesia room should be next to one of the operating rooms. The nurses' workroom should have ample space for the making and storage of dress-



This room in a fifty-two bed hospital in Cincinnati is a pleasing example of the small hospital private room.

ings, with a nurses' toilet adjacent. The doctors' scrub-up room should be near the operating rooms, but their coat room and toilet should have separate entrances from the corridor. A small laboratory is often included in the operating department, though this depends on the proximity of the main laboratory. A small orderlies' room and a supply room should complete the department, but if space permits a cystoscopic and plaster room could be added. A waiting room should be provided near the elevator. These rooms should have terrazzo or tile floors and tiled walls in a shade that will not create eyestrain. The instrument cupboards should be built in. The lighting fixtures for the operating rooms should give a concentrated light on the field of operation without casting shadows and with the least degree of heat. In the smaller hospital the operating department is often on the first floor in connection with the accident room.

The kitchen department in a hospital of this size might be in the main building. Besides the main kitchen it includes the diet kitchen, ample storage rooms for groceries and cold storage. A receiving and checking room should be at the entrance where all incoming and outgoing material can be controlled. A bakery can be provided either for all baking or for making only cakes and pies.

The dining rooms for nurses, staff and servants should be placed near the kitchen for ease and economy of service. The patients' food can be served either in bulk and carried by food trucks to the ward serving rooms where it is placed on the patients' trays, or by trays direct from the kitchen. It seems advisable for the small hospital to use the latter system, which has been worked out in many institutions with excellent results. It has the advantage of reducing the amount of equipment on the floor and makes it possible to do most of the dishwashing in the kitchen department. This system, however, will not function efficiently unless there is ample dumb-waiter service to the floors and unless the trays are delivered promptly to the patients so that the meals will arrive hot. It has the added advantage of bringing all patients' food service under the immediate eye of the dietitian.

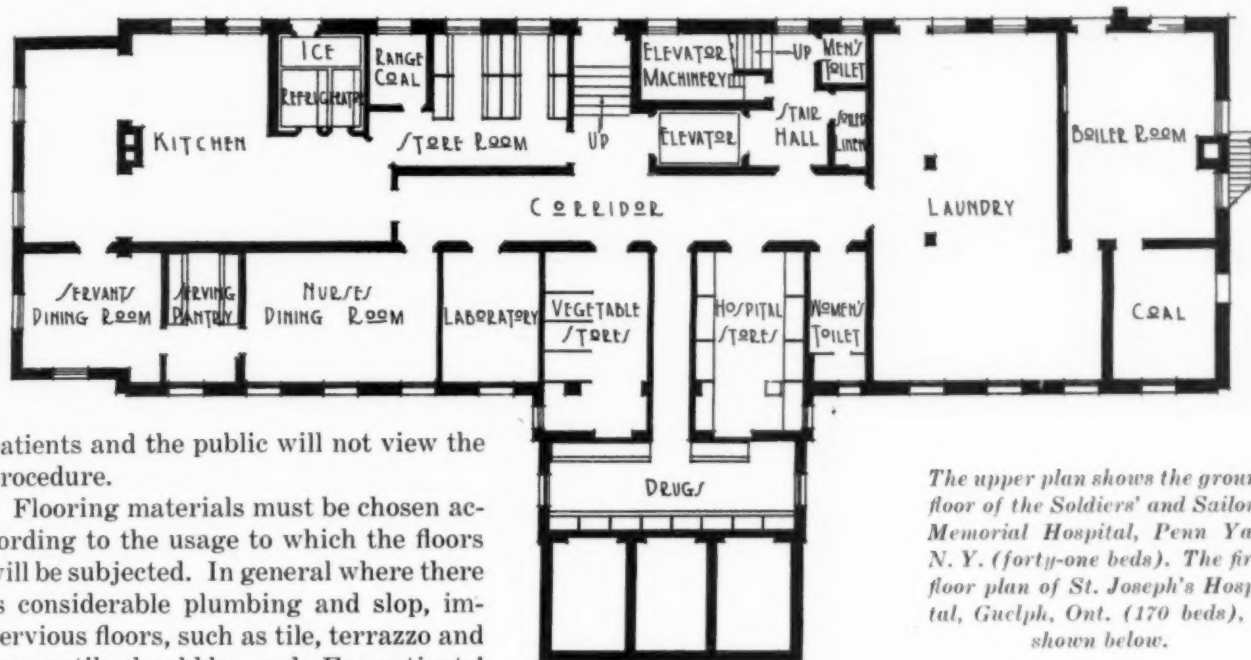
No modern hospital can possibly function without certain special departments, which serve not only the in-patients but also the community at large. The out-patient, x-ray, laboratory, electrocardiograph, physiotherapy and other therapeutic departments are all essential to an up-to-date institution, and in planning careful consideration must be given to whether these departments are to be used as diagnostic or treatment agencies or

both. The size of each will, of course, depend on local conditions and on the amount of money to be spent on the hospital. Some of these departments are revenue producers and this should be considered in determining their inclusion.

The admitting department, with admitting bath, and an accident room with an emergency operating unit should be provided at the ambulance entrance. Careful provision should be made for autopsy work and for the removal of bodies so that the

In general all the machinery should be in the power plant under the eye of the engineer whenever possible. This also applies to the cold storage machinery if it is of the circulating brine type. The tendency in this regard, however, tends towards the use of individual units or groups of them actuated by a machine using gas for the refrigerating unit.

An ample supply of domestic hot water should be available at all hours. This can be circulated



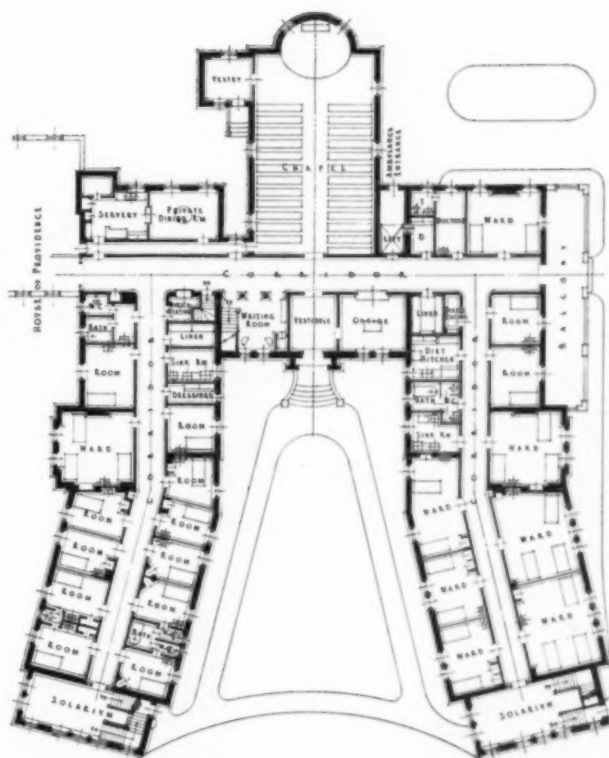
patients and the public will not view the procedure.

Flooring materials must be chosen according to the usage to which the floors will be subjected. In general where there is considerable plumbing and slop, impervious floors, such as tile, terrazzo and quarry tile should be used. For patients' rooms, corridors and elsewhere, linoleum or rubber can be chosen. Rubber, although more costly than tile, has a greatly reduced upkeep, is softer to walk on and has a considerably longer life. However, it should not be used on floors that are laid with no space between them and the ground.

The power plant and laundry should be, preferably, in a separate building. It is more economical for a hospital to do its own laundry than to have it sent out. Because of personal supervision under this method, there will be considerable saving in wear and tear and because of the promptness of service a smaller supply of linen is required.

The power plant design will be decided by local conditions, but a constant supply of high pressure steam will be required for laundry, sterilizing, cooking and other uses. This is the cheapest unit for these services. Hot water heating seems to suit a Northern climate better than steam, and is usually employed. The water is heated by steam and is circulated through the building by pumps. Operating rooms, however, should be heated by low pressure steam, so that the system may be used in milder weather when the hot water heating is not operating.

The upper plan shows the ground floor of the Soldiers' and Sailors' Memorial Hospital, Penn Yan, N. Y. (forty-one beds). The first floor plan of St. Joseph's Hospital, Guilph, Ont. (170 beds), is shown below.



from the power plant by small pumps. If distilled water is used it can be located in a penthouse and piped through block tin pipe to the operating rooms and to the different floors for use on the wards.

Natural ventilation should be used wherever possible, but such rooms as the operating department, sink rooms, toilets, serving rooms, kitchens and linen rooms, should have artificial ventilation actuated by exhaust fans, the exhaust outlet being in a penthouse or tower on the roof.

The electric installation should include, besides the general lighting, the plug outlets in all rooms for various services and for night lights in the rooms placed so that the light will not shine in the patients' eyes. The same type can be used for corridors. Together with these must be provided a silent nurses' call system, a doctors' and interns' call system, a fire alarm, an electric clock, telephones, radio, electrocardiograph and x-ray. If the lighting wiring is made sufficiently heavy it will provide for the use of a portable x-ray in every room. Special high voltage lines must, however, be brought to the x-ray and physiotherapy departments.

Elevator service must be considered, and if there is more than one, each should be large enough to carry a bed and several attendants. If food service is to be by elevator a separate machine should be reserved for this work at meal times. These machines should operate silently and, while a high speed is not necessary, they should be equipped to stop level with each floor so that trucks and stretchers will not be jarred at exit and entrance.

Providing Accommodations for Employees

Women servants may be housed in the building itself and the men servants in the power house, but a coat room should be provided for those servants who live out. There should be a general living room for each sex, as well as toilet accommodation, linen store and space for trunks.

A separate building for the nurses, with a single room for each nurse, is always advisable. If a training school is operated, provision must be made for teaching. A small office for the supervisor of the home, a general living room with a small reception room or rooms where nurses may entertain their friends, a recreation room for entertainments and a library should be included in the home. Special provision should be made for the superintendent, if a woman holds the position, or for the superintendent of nurses and the heads of departments and graduate nurses. A sitting room and balcony on each floor are useful features.

I shall not touch upon the essential and interesting subject of equipment for the small hospital.

While it is a study in itself, it would be impossible to plan any medical institution without constantly keeping in mind and making provision in each room for the apparatus and equipment of all kinds that it will contain.

One prime factor in planning must not be lost sight of at any stage. The more successful and popular the hospital is in the community, the more will be the likelihood of extension at some near date. Advances in medical and surgical practice also will contribute to this and therefore no hospital can be considered as complete for more than a short time. "Look ahead" should be the watchword.¹

How the Hospital Should Handle the Patient Who Demands Surgery

It is the duty of the hospital to prevent unnecessary surgery. It is a distinct obligation of members of the surgical staff to prevent patients from undergoing operations for real or imaginary difficulties that do not promise definite relief. In every institution from time to time are observed patients with badly scarred abdomens who travel from one hospital to another seeking for relief from imaginary difficulties that surgery cannot alleviate.

To find an effective course of action by which this problem can be best handled is not always simple. Patients studied in the medical wards and discharged because clinical and laboratory studies did not seem to warrant the adoption of surgery have repeatedly presented themselves at the offices of surgeons who have referred them back to the same hospital or to other hospitals where a laparotomy was done. When the members of an executive committee of a professional staff learn of such breaches of surgical judgment, they should be forcibly called to the attention of the individual concerned.

When patients demand that surgical operations be performed, the hospital should be rather more inclined to hesitate in acceding to this request than when the patient presents the opposite state of mind. Unnecessary surgery is certainly practiced here and there, and until more careful pre-operative studies are made, it will continue to exist. Moreover, members of the surgical staff should refuse to operate in the presence of a negative recommendation on the part of the medical staff until a consultation has been called and a unanimous agreement reached as to the proper course to pursue.

¹Read at the annual meeting of the Ontario Hospital Association, Toronto.

How the General Hospital Serves the Industrial Patient

By STEWART HAMILTON, M.D.

Director, Harper Hospital, Detroit

INDUSTRIAL surgery has developed rapidly during the last few years and some of the best contributions to surgical technique and surgical care have come to us from the industrial departments.

Industrial surgery has grown from modest beginnings. The original responsibility of the factory to its injured employee was limited to the primitive form of first aid care. This first aid care was usually given somewhere in the plant by an inexperienced employee who was instructed merely in the application of small dressings. If the man was severely injured, he was sent to the office of the neighborhood doctor who gave the necessary care and saw the patient through as best he could, always having in view the saving of expense to the company rather than the adequate care of the patient. Hospitalization was resorted to only under extreme circumstances, and even then only the most poorly equipped and least qualified hospitals were selected because their rates were usually low.

When the state began to take an interest in the welfare of the injured man and to insist that employers pay a weekly compensation to one who was disabled in the course of his work, when it became mandatory for companies to provide ample medical and institutional care and when further it became their liability to compensate the individual for permanent disability either partial or complete acquired in the line of duty, an entirely new attitude developed concerning the medical and surgical care of the injured employee.

What the Compensation Act Provided

The compensation act made it not only mandatory for the employer to take care of the injured individual, but it also made it his duty to pay a weekly wage after the first week of 66⅔ per cent of the worker's weekly wage, a maximum of \$18 and a minimum of \$7, during the period of his disability. It therefore became doubly important to the company to shorten the period of disability as much as possible. Besides this, the act was so written that, if the injury lighted up or exaggerated a

previous natural disease, the company was still liable for the death claim, provided the accident could be shown to have contributed to the fatal result. This provision of the act was not altogether fair or equitable because men with minor and inconsequential injuries frequently have taken advantage of the contributory clause in the law and as a result many death claims have been paid on account of decisions that have been based on the contributory factor when death was really due entirely to natural causes. All these things have made it particularly imperative that the care of the injured man shall be expert and thorough. Industry has learned that highly expert industrial surgeons are a good investment and that hospitals with the finest equipment and facilities for taking care of the injured are really cheaper in the long run.

Caring for Industrial Patients

It is important that the hospital taking care of the industrial case shall have a well developed and expert x-ray department, that its laboratory shall be highly organized and efficient and that its operating room service shall be of the very best. In addition, it has been found that industrial cases should be given a part of the hospital separate from the general run of patients. This contributes to the happiness and contentment of the injured men and makes possible certain liberties for the industrial patients that could not be extended to the general hospital patients. Overcrowding, a former and unnecessary disadvantage that industrial organizations often resorted to in an effort to cut down expenses, has been remedied. All this has resulted in returning the injured man to work and usefulness much sooner than was formerly the case.

Although the expense of the employee's care in a well regulated institution is necessarily greater than it would be in a makeshift hospital set up somewhere in a private house with a few beds and no general hospital facilities, the improved results and the shortened stay more than balance the account. Besides this, it is particularly valuable

and necessary to have a well organized and complete hospital record on all of these cases. So many of them are finally litigated and become the subject of court action that, for the protection of the company as well as for the man, a complete record of his stay in the hospital is particularly desirable. Supervisors of industrial wards by experience learn the information that it is usually necessary to include on the chart of the industrial patient.

So many general diseases are detected in the course of a thorough medical examination that a single company having a large number of injured men will save thousands of dollars a year by reason of the information it obtains regarding the physical condition of its men when they are hospitalized in a well regulated institution. Such things as vascular disease, arteriosclerosis, chronic Bright's disease, aneurysm of the aorta and many other medical conditions so frequently end fatally and with great suddenness that the company is saved thousands of dollars if it is made aware of these conditions before the sudden fatal termination makes the company liable for a related minor accident.

At present all large hospitals are caring for industrial patients for less than cost. This has been due to the pressure brought by companies who have desired to hospitalize their cases as cheaply as possible and to the pressure the physician in charge of the case has exerted on the hospital in order to bring his case to a well regulated hospital and have the benefits of its services. Some states, however, endeavor to regulate this by legislation.

Industrial Rates Should Be Revised

Industry has been liberal with hospitals. Many of the large corporations have contributed liberally to the building of large institutions and there has been, therefore, the feeling on the part of boards of trustees that industrial companies should be given the benefit of the lowest possible rate in hospitalizing their men. The technique, however, of hospital care has grown so rapidly that the rates now in vogue for the care of industrial cases are entirely out of line with the hospital cost. If the present standard of excellence is to be maintained in our industrial wards, there will have to be a general revision upward of industrial ward rates. This will not necessarily be very great and, when the benefits of expert care are taken into account, the rates will not be unreasonable or out of line with the service rendered.

I would, therefore, have these few things to say to employers and industrial surgeons alike: First, the benefit of hospitalization in a thoroughly equipped and well regulated institution is a good

financial investment because the patient's stay is shortened and because of the knowledge of his physical condition, and the records that are included to protect the company in case of further litigation will more than compensate for the cost of care. Second, industry, which is a gainful occupation and expects to pay dividends upon its capital, should not ask for charity and should not expect the community to take care of its responsibilities for less than cost. No hospital makes money if it is properly run and no hospital expects to pay dividends upon its investment. Those in control of industry, therefore, should appreciate this point and do their share toward maintaining a proper service for industrial patients.¹

Preventing the Theft of Private Room Material

Hospitals of all sizes and grades experience much difficulty in preventing the loss by theft of such articles as private room table and bed linen, dishes, radio sets, instruments and towels. Indeed, in some institutions a definite percentage of the funds required to purchase such supplies is charged off each year as an unpreventable loss due to petty theft.

There are ways, however, by which the hospital dietitian may more or less successfully control the theft of table linen from the private room department. Where special duty nurses are assigned to a patient such a control is less difficult to bring about than on semiprivate and other floors where no special duty nurses are to be found. A plan whereby there is a definite issuance of bed and table linen to each room with a system of direct exchange of clean for soiled articles has been successfully instituted by some executives. Moreover, there is no good reason why the loss of linen should not be charged to the occupant of the private room to which it was issued. To protect itself from the loss of electric fans, one hospital was forced to recess the fan bed in the wall and to lock the door leading to it. When radios are supplied it is customary in the modern hospital to adopt a similar plan in order to prevent their loss. A direct exchange system for the issuance of towels is also economical.

The solution of this difficulty seems to lie along lines of frequent inspection, of unit issuance and of holding floor and private nurses to their responsibility for the protection of the hospital against such losses.

¹Given before the Michigan Association of Industrial Physicians and Surgeons.

Should the Hospital Pharmacy Sell to the Public?

By WILMER KRUSEN, M.D., LL.D.

President, Philadelphia College of Pharmacy and Science, Philadelphia

THE hospital pharmacy is an important unit in the modern hospital organization. It should be properly located with adequate facilities for compounding and dispensing drugs. It is designed, rightfully, for the use of the visiting and dispensary staffs and for the pharmaceutical needs of bed and dispensary patients.

If it becomes a pharmacy catering to the demands of the general public a condition results that promotes unfair competition with the trained ethical pharmacists engaged in legitimate business. In many states, hospitals receive state aid and could not continue their useful services without it. If the pharmacy becomes a salesroom for the sale of drugs as well as of miscellaneous articles to the public, then the state becomes a business partner with the hospital in merchandising. Salaries, equipment, supplies and rent are in part paid by the state or by generous contributors who donate their money for charitable purposes.

The hospital pharmacy is designed for a special service. The opulent "private" patient should pay a fair price for his medicine; the poorer patients should receive their prescriptions at cost or even free.

It is common knowledge that the financial burdens of many institutions are great, but the expedient of entering into the business of maintaining public apothecary shops does not seem the wise solution of a problem which is becoming greater and greater during this period of business depression.

Possibilities Are Limitless

The establishment of public pharmacies in hospitals would in many instances necessitate a change in the charter of the institutions, permitting them to engage in business, a vital change from their original purpose and program.

Shall the hospital, because it receives concessions in purchasing supplies, enter into the business of selling sickroom necessities—beds, sheeting, furniture? And shall the cafeteria, where the nurses are so economically fed, be opened to the man on the street who rushes from his office or factory to

get a well balanced meal in the scientific purlieu of a sanitary institution? Shall the beautiful grounds that surround some of the hospitals be rented for parking places for automobiles during the rush hours of the day or the private rooms and baths be rented during the progress of some great convention of Shriners, Elks, Rotarians or even medical men, when the hotel facilities of some towns or cities are overtaxed? A substantial revenue might thus be obtained by a certain great city hospital which has been compelled to close one or two floors of private rooms because of the lack of demand for their use.

Reductio ad Absurdum

While a well equipped, adequately housed, properly manned hospital pharmacy is most desirable, it should not become a public emporium, maintained by charity or appropriation. We are all familiar with the so-called "dispensary abuse" where persons able to pay for professional services take the time of unselfish physicians and usurp the rights and prerogatives of the poor and unfortunate sick and injured in their selfish efforts to get free treatment. The public hospital pharmacy would repeat the evils that are now being strenuously corrected by administrative boards and medical staff officers who are striving to aid the deserving and eliminate the self-seeking from our dispensary waiting rooms.

Of course if hospitals intend to enter into competitive business, some radical change will have to be made in the location of the "drug room," for often it is discovered in subterranean areas reached only by passing labyrinthine corridors, dimly lighted, as in some mystic maze and only to be found by the initiated, by the employment of a guide book or by the assistance of some venerable employee.

One is tempted to be facetious as one contemplates the possibilities of business and financial manipulations on the part of hospital administrators. Why not supply office facilities for accident insurance agents, a legal aid bureau or even desk room for some enterprising mortician? A newspaper and magazine booth and a florist shop are

also needed and often the sale of linens and lingerie would be an accommodation to patients and visiting friends. Verily, *reductio ad absurdum* is justifiable in considering this subject.

The splendid service of the modern hospital has been definitely proved. Let us keep to our traditional function of caring for the sick and injured and avoid the pitfalls and problems of competitive business.

There is an old adage that has a possible application in this connection. It is, "Shoemaker, stick to your last!" Homely, but truthful!

The pharmacist in the well organized up-to-date hospital has definite special duties to perform: the preparation of certain solutions for the operating room; the replenishment of ward drug closets; the daily task of compounding recently written prescriptions. This rather routine performance is one that requires training and accuracy. For the hospital pharmacist to compete with the corner drug store would mean longer hours, a greater number of assistants, a wider variety of stock and a diversion from the concentrated interests he should primarily serve. Instead of serving and catering to a staff of a limited number of physicians and surgeons, he becomes necessarily a salesman to the masses.

Much might be written of the rôle of the modern twentieth century pharmacist—how he has had to adapt himself to changing demands and conditions in order to make a livelihood and to maintain high ethical standards—and, although only indirectly related to this subject, it is a matter being considered by the best men in both medicine and pharmacy and one regarding which an optimistic attitude is discernible. But will that attitude be possible if the hospital enters into competition with the department emporium and the chain store and the corner grocery in the sale of drugs and medications?

Again I urge, "Shoemaker, stick to your last!"

How Spinal Anesthesia Is Given at Gorgas Hospital

That spinal anesthesia is ideal for abdominal surgery in adults who are fair surgical risks, and who have a systolic blood pressure of not less than 120 to 130 mm. of mercury is pointed out in *Medical Arts*, which describes the method in use in Gorgas Hospital, Ancon, Panama, Canal Zone.

The procedure for producing the spinal anesthesia is as follows:

The skin of the back is prepared as for any other surgical procedure. The skin and deeper tissues of

the back are then anesthetized with a 2 per cent solution of novocaine before the actual spinal puncture is made. This is usually done with a "hypo" needle in the skin, followed by a "Wassermann" needle in the deeper tissues. Spinal puncture is then done with the patient either lying on the side, or sitting on the edge of the table with the back acutely flexed. The puncture is then made in the second, third or fourth lumbar space, depending on how high it is necessary to have anesthesia. From eight to twelve cubic centimeters of the spinal fluid is then withdrawn into the sterile medicine glass, the amount removed depending upon the amount of intraspinal pressure observed when the fluid starts to flow. The needle is then left in place and the stylette is replaced to stop the flow of fluid.

Injecting the Drug

The ampoule of neocaine (the drug used for the anesthesia), having been opened, from six to eight cubic centimeters of the spinal fluid is drawn up into the syringe. About two cubic centimeters of this amount is then injected into the ampoule of neocaine and the whole is agitated until all of the crystals are dissolved. This highly concentrated solution of the drug is then drawn up into the syringe to mix with the spinal fluid that was already in the syringe. The stylette of the puncture needle is then withdrawn and observed to see that the needle is still in place in the subarachnoid space. The syringe is then connected to the needle and the solution of the drug is slowly injected into the subarachnoid space, care being taken not to move the needle in or out. It is well to rotate the needle slowly, however, as this causes the drug to spread more rapidly throughout the desired spinal area.

Anesthesia Almost Immediate

The patient is then placed on the table in the proper position for the operation, and the table tipped into the Trendelenburg position. This position helps to prevent intracranial anemia during the operation, hastens the anesthesia and also keeps the abdominal contents up under the diaphragm during laparotomy.

Anesthesia begins almost as soon as the drug is injected. During the operation a nurse or assistant sits at the patient's head and endeavors to keep up active conversation. This not only distracts the patient's attention from the operation, but gives mental stimulation, which also seems to stimulate the respiratory centers. At times the patient becomes so drowsy that he fails to respond to questioning, but he never seems to lose consciousness altogether.

More Homes for Convalescents —An Urgent Need

By O. WALDEMAR JUNEK

Formerly of the Chicago Health Department, Chicago

THE great need for convalescent hospitals has long been recognized. Their value has steadily grown since they were first mentioned within the sacred groves at Epidauros and Kos by the father of medical lore.

In every part of the United States innumerable cases are on record to indicate the lack of convalescent facilities for patients discharged from the wards of general hospitals to make room for the newly arrived acutely ill. Often, too, the patients themselves become wearied by the atmosphere and the monotony of a general hospital and leave it during their convalescence. That such a practice often leads to chronic illness or to post-operative complications is known by every doctor who works for and hopes for his patients' complete recovery of health.

Yet, in spite of all the thousands of unrecovered cases, surveys show a surprising lack of convalescent homes and facilities in cities boasting of a population of a million or more. One of these surveys shows also that there are only some thirty-three bona fide convalescent hospitals in the United States and that these hospitals have an

aggregate of only 1,167 beds. Still more shocking to a student of hospital management is the fact that two-thirds of this number are in New York State, New Jersey and Massachusetts, which leaves an insignificant number for the rest of the country.

According to a later report the total number of hospital beds in the United States was 907,133 in 1929. In this number were included 6,474 beds in 149 institutions listed as "hospitals for convalescence and rest." The Committee on the Costs of Medical Care in its report on institutional convalescence believes, however, that the bed capacity of institutions belonging to the convalescent category has been declining, for reasons not explained in the report.

The Sturgis Research Fund of the Burke Foundation lists 162 convalescent hospitals or homes; yet not all of them are "all the year around" institutions and not all of them are fully functioning. To make the situation still more incomprehensible, not all of them are public hospitals.

This lack has been only partially remedied, however, by the Burke Foundation and the United



The Burke Foundation Convalescent Home, White Plains, N. Y.

Hospital Fund, New York City, which have in their own way contributed to the solution of the problem and which may, therefore, be considered models for similar efforts elsewhere.

The demand for convalescent hospitals is increasing in all parts of the country. This demand comes both from the general hospitals and from the convalescent patients themselves. The latter, after having floundered aimlessly about clinics for weeks and months in an endeavor to regain their health, feel the need of a well situated and adequately equipped hospital to receive them at a nominal cost and to supervise their convalescence for as long as the doctor recommends.

The average standard costs per patient in a regular general hospital range from \$7 to \$12 a day. What is conceded to be a fair and minimal cost for a bona fide acutely ill person turns out to be too high a figure for a convalescing one. Of course, there is the average person who is able

make room for the new arrivals. According to the survey made by the Burke Foundation, the per capita daily rates of convalescent patients are moderate, ranging from \$1.25 to \$3 a day depending on the age, condition and probable duration of the stay of the patient.

There is still another aspect that is intimately related to the period of convalescence. In the words of a trained hospital man it can be expressed thus: "There is no better place for an acutely ill patient than the general hospital; there is no drearier place than such a hospital for a person who is convalescing." Some twenty-five years ago immediately following the termination of an attack of dry pleurisy, my father insisted upon my being taken to a convalescent home. I was then a lad of some fifteen years. I distinctly remember how happy I was to be there and how I fought against being discharged at the termination of my convalescence. The hospital in which



The dining room in the convalescent home should be pleasant and informal.

and willing to pay the required amounts during the acute stage of his illness but who longs for a speedy termination of such a stage in order to reduce his expenses. Regular hospitals themselves are sometimes anxious to discharge a patient as soon as the acute stage has passed in order to

I spent three weeks of convalescence was so pleasant, the park surrounding it so beautiful, the care I received so unhurried and gentle, that when I was finally discharged I regretted the brevity of my stay. As I look back upon this period of my life, I am convinced of the great benefits that such

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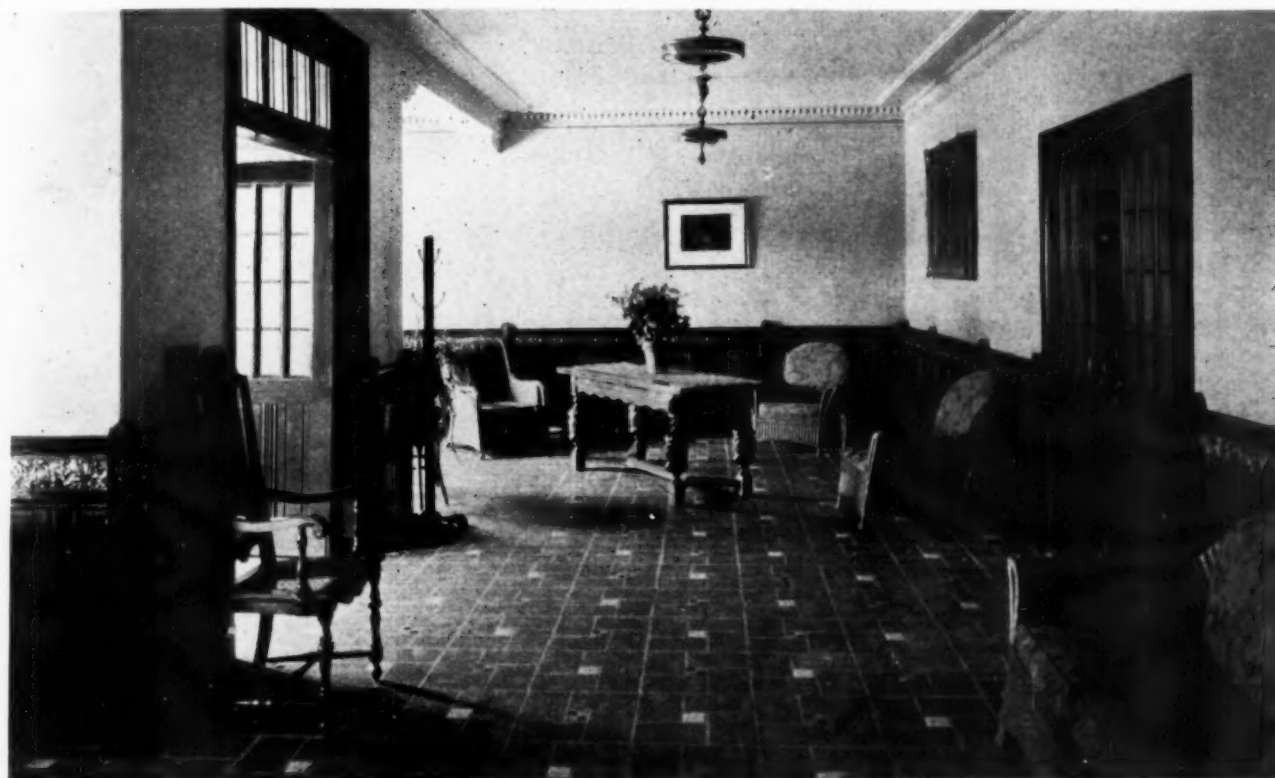
hospitals can bring by their reconditioning, their relapse preventing and their health promoting features.

The Burke Foundation, after studying the situation arrives at the following conclusions:

1. The New York City health requirement is

pense. Changing some summer places to year-round service would triple their efficiencies at a moderate advance of maintenance cost.

5. Convalescent costs and methods are fairly standardized and information regarding them is readily obtainable. It is a growing and attractive



Comfortable, homelike surroundings will ensure a quick and successful convalescence.

upward of 4,000 year-round country convalescent beds; with the present population and usages, only about 1,500 are on the average now available for use.

2. Certain needs, calling for 400 beds, are pressing: for nervous and mental borderline patients; for older boys; for mothers with infants; for small children; for Negro convalescents; for cardiac patients; for lung borderline cases; for orthopedic and bone disease cases and for special dietary patients. Adequate pay convalescence is being definitely planned for.

3. Additions in the allied and interlocking health fields will aid measurably in closing these gaps—fresh air and vocational outlets on the one side, with more institutions for chronics, for defectives, and for aged persons on the other. There will also be more special clinics and better home convalescent supervision.

4. Changes and adaptations in established institutions in classification, admission and follow-up of patients will help directly to lessen these convalescent needs. Here lie the opportunities for immediate advancement, with little added ex-

movement, in which valuable pioneering and research are well under way. Advantage should be taken of this "up wave" impulse to add many convalescent places, large and small, to the city's health making facilities.

Chicago Needs More Convalescent Beds

Chicago is even more woefully deficient in convalescent facilities. Although hospital beds in that city number almost 21,000, only some 315 beds are available for convalescents. This comprises the entire metropolitan area. Quoting from the weekly bulletin published by the Chicago School of Sanitary Instruction, "Chicago hospitals for the acutely ill and injured, exclusive of all patients cared for in the state, county and municipal institutions in 1929, treated 67,772 medical and 160,995 surgical patients."

Chicago should have a convalescent home with 200 or more beds, which in our estimate is the absolute minimum. The cost of construction of such a home should not exceed \$400,000, according to specialists engaged in the study of Chicago hospital standards. With the present downward

trend in the prices of materials this figure could probably be reduced to \$350,000.

The best solution for appropriating or raising sufficient funds for the building and equipment of more convalescent homes in metropolitan areas suggests itself at once by reason of its feasibility and low costs. By pooling the resources of all the already existing hospitals of the conventional kind in a given area, one or two "central" convalescent homes could be erected. It would not matter who assumed the initiative or whether the programme was carried out by the hospitals themselves or by the philanthropic activity of one man or of a group of public-spirited men. The benefits derived from convalescent homes are so great that the municipal or county governments could well justify taxation to build them. When such an action is not forthcoming, however, the independent and concerted interaction of the hospitals themselves seems to be the best and the most businesslike method of procedure. Thus all of the hospital organizations of any given metropolitan area would not only have a proportionate share in the ownership and control of such a convalescent institution but they would derive financial benefits from its constant use.

According to a study made by the Sturgis Research Fund, certain proved cost standards are useful to us in the solution of the problem. A dollar and a half to \$3 a day per patient may now be taken as a fair rate. This gives a variance of from \$540 to \$1,080 a bed per year, depending upon the kinds of patients and the elaboration of service. Those who contemplate building, say, a 200-bed convalescent home may expect a gross annual income of from \$110,000 to \$216,000. Thus the costs of construction and equipment could be amortized in about three years.

Practical Suggestions for Hospital Buyers

"How, When, Where to Buy" is the title of an article by E. H. Smith, purchasing agent, University of Chicago, in the *Bulletin of the Chicago Hospital Association* that contains many suggestions of interest to the hospital superintendent or purchasing agent.

These suggestions are summarized as follows:

Be governed by the technical advice of experts pertaining to the selection of the hospital's supplies and equipment.

Put quality before price.

Purchase from reputable houses only.

Build up a clientele of supply houses and do business with them regularly.

Establish credit with supply houses and thus reduce your cost through trade discounts not otherwise obtainable.

Establish as many direct contacts as possible, eliminating the jobbers' percentage.

Treat trade discounts confidentially.

Purchase only the articles needed—any other purchase is costly.

Adopt the budget plan as the only safe method of operation.

Determine the savings effected by adopting a budget.

\$100,000,000 a Year for Prescriptions Is Nation's Bill

From \$90,000,000 to \$135,000,000 is spent by the American people for the 120,000,000 to 180,000,000 prescriptions which it is estimated are filled annually by the nation's drug stores, according to Wroe Alderson, chief business specialist, Department of Commerce, in an address before the American Pharmaceutical Manufacturers Association.

Despite these figures, a considerable excess capacity for filling prescriptions exists, Mr. Alderson pointed out. This prescription business is divided among approximately 60,000 drug stores, which employ on the average two pharmacists each. If there were sufficient prescription business to keep all these pharmacists busy they would be able to fill approximately 6,000,000 prescriptions a day, or 2,160,000,000 a year.

The situation with regard to overcapacity in the prescription phase of the drug store is even more marked when the dispensing physician and the "professional" pharmacy are considered. Surveys have shown that 78 per cent of the physicians in towns of 5,000 or less dispense their own drugs altogether or in part.

The cost of maintaining a prescription department in the ordinary type of drug store is burdened by the excess of prescription capacity which the department must carry. Nevertheless, preliminary results of the prescription analysis being carried on in the St. Louis drug survey indicate that the typical drug store is generally well supplied with U. S. P. medicines most frequently prescribed, whereas somewhat contrary to the usual belief, few rare or obsolete drugs were found to be carried in stock.

Eleven independent drug stores, two chain units and one professional pharmacy, are being studied in the national drug store survey which is being carried out by the Commerce Department.

General Health Insurance and the Patient of Moderate Means

By HENRY HEDDEN, M.D.

Superintendent, Methodist Hospital, Memphis, Tenn.

THE so-called problem of the patient of moderate means is one that has been receiving more and more attention of late years.

Just how to define what is meant by "the patient of moderate means" is somewhat of a problem itself, but his status must be somewhat definitely understood before an attempt can be made to decide what special consideration he should receive at the hands of the hospital administrator. It is almost impossible to set a standard that will be applicable the country over. The patient whose means is sufficient to provide him or a member of his family with a private room and with necessary medical and surgical attention in a locality where prevailing rates are low would be unable to meet the cost of such service in a community where the prevailing prices are higher. The cost of living, in a general way, may also be an influencing factor.

Patient's Psychology Must Be Studied

A great deal of study has been made of this subject by many able hospital administrators, and the most pretentious program of study that has been made is now being carried out by the Committee on the Costs of Medical Care. What definite recommendations may arise from this study are, of course, not predictable now.

The psychology of the patient of moderate means needs to be considered by itself. The average salaried man, if there is such a person, must adjust his scale of living to his income. The cost of the house he lives in, his food and clothing budget and all necessary living expenses are adjusted to the family income. But when surgical disaster overtakes some member of the family the patient must have, as a usual thing, the best accommodation the hospital can offer; nothing less than a private room will do. Often, as a matter of choice, the patient demands the full-time services of a nurse. Any effort on the part of the hospital to give the patient the accommodations he is financially able to afford meets with little success. The result is that the hospital must bill the patient for as large a sum as it would charge a patient who

is known to be in possession of abundant means.

The high cost of a short stay in the hospital has recently been the subject of much discussion both spoken and written. Yet a number of able men have shown that it costs no more for a cholecystectomy or any other surgical procedure to-day than it did twenty-five years ago, due to the fact that better surgical and hospital care has shortened the patient's stay noticeably, which offsets the increased daily rates. Various remedies have been suggested and many have been tried to enable the hospital to charge the patient at a rate he can afford to pay. Nearly all of these plans are based on serving the patient at less than cost. It is a fundamental economic principle that the hospital cannot do this indefinitely without some means of standing the loss. The hospital that is ideally prepared to meet this burden is the one that has some means of meeting its deficit. This may be either in the form of voluntary contributions, of church assessments, in the case of church owned hospitals, or of an income from some such scheme as the Golden Cross, in the case of the Methodist Episcopal Church, South. Or the deficit may be met from community fund aid or from the income from endowments.

How the Costs Are Distributed

The hospital that has no form of income outside of its earnings must recognize the fact that it is definitely limited in the amount of work that can be done for less than cost, and that the deficit due to caring for patients at less than cost can be met only by a tariff on the patient who pays regular rates. No church, for example, operating a hospital should take credit to itself for the large amount of charity work its hospital is doing, unless the church organization itself is actually putting that amount in money into the hospital to pay for this work. Otherwise, it is not the organization that is doing the large amount of charity but the pay patient.

Elaborate plans have been worked out so that the family on a moderate salary may budget all its expenses, making due allowances for such items

as the clothing, food, entertainment and medical care. This would be an almost ideal plan if a person could plan his illness as he might plan his vacation. But an elaborate study of the burden of illness which has been made by a member of the American Hospital Association has shown that the burden of illness is by no means equally or equitably distributed. It is true that a certain series of cases showed that the average hospital bill, for example, was less than \$60, but a closer analysis of these figures revealed that many bills were far in excess of this amount. The investigator was forced to the conclusion that four-fifths of the cost of medical care falls on less than a third of the number of persons who are ill, the other fifth of the cost being distributed over two-thirds of those who are ill, which makes the burden of medical care fall eight times as heavily on a small group. This makes it almost impossible to budget the income successfully against illness.

Is Insurance the Ultimate Solution?

Various insurance plans have been worked out. In fact, some form of insurance may be the ultimate solution to the problem of the patient of moderate means. If the large insurance companies can prorate the risks of death, accident, sickness and fire to say nothing of marine disaster, tornado, public liability and workman's compensation, there is no reason why they could not work out a form of insurance which, for a small annual premium, would cover the entire cost of medical care for a family. In fact, I know of no plan that would meet all the difficulties of providing hospital service for the patient of moderate means so well as that of general health insurance.

Several hospital administrators who are in step with the times have taken cognizance of that commercial giant whose development has been so marked in the last few years, that of installment payments. Any commodity that has any permanence of value can be obtained on the well known conditional sales contract. Why not take advantage of the principle on which the family of moderate means is so thoroughly sold and permit it to pay its hospital bills on a definite and dignified plan of installment payments? The principal difference between hospital service sold on this plan and commodities sold on this plan is that the conditional sales contract could not apply because services once given cannot be replevined. The scheme of installment payments might be carried even further, as a friend of mine has done, and arrangements made for the patient of moderate means to finance his hospital bill through an industrial bank.¹

¹Read before the convention of the American Hospital Association, New Orleans.

Educational Requirements for Nurses in Wisconsin

After June 30, 1933, all accredited schools of nursing in Wisconsin must adopt the prerequisite of high school graduation or an equivalent acceptable to the Bureau of Nursing Education, under a ruling recently adopted by the state committee on nursing education and upheld in an opinion of the attorney general's office.

According to Adda Eldredge, director of the bureau, the cooperation of the nursing schools of the state with the Bureau of Nursing Education in advancing the status of the profession has been so whole-hearted that already thirty-five of the state's thirty-seven nursing schools have established this educational prerequisite for those planning to enter the nursing profession.

The bureau functions under the state board of health through the committee on nursing education, in which the state hospital association, the Catholic Hospital Association, the state medical association, the state nurses' association and the board of health are represented.

The examinations are held annually and all nurses are required to reregister annually. The list of those registered and eligible for active practice in Wisconsin at present contains the names of 4,282 nurses.

The Popularity of Sickness Insurance Abroad

Twenty-four countries at the present time have compulsory sickness insurance while eighteen have a voluntary system, according to figures presented by the Commission on Medical Education and incorporated in a report on "Medical Education and Related Problems in Europe."

The plans in the different countries vary greatly, the report points out, but they all aim to provide a method of distributing the economic burden of medical care over a large section of the population. The provisions for medical care, however, are only a part of a much larger scheme of insurance against incapacity, disablement, unemployment, old age and other economic risks. In twenty of the countries having compulsory insurance, the plan is restricted to wage earners.

European countries in which sickness insurance is effective include Great Britain, Germany, Denmark, Austria, Switzerland, The Netherlands, Sweden and France. The various plans in use in each of these countries are described in some detail in the report.

The Moral, Physical and Legal Aspects of Autopsies

By MILTON PLOTZ, M.D.

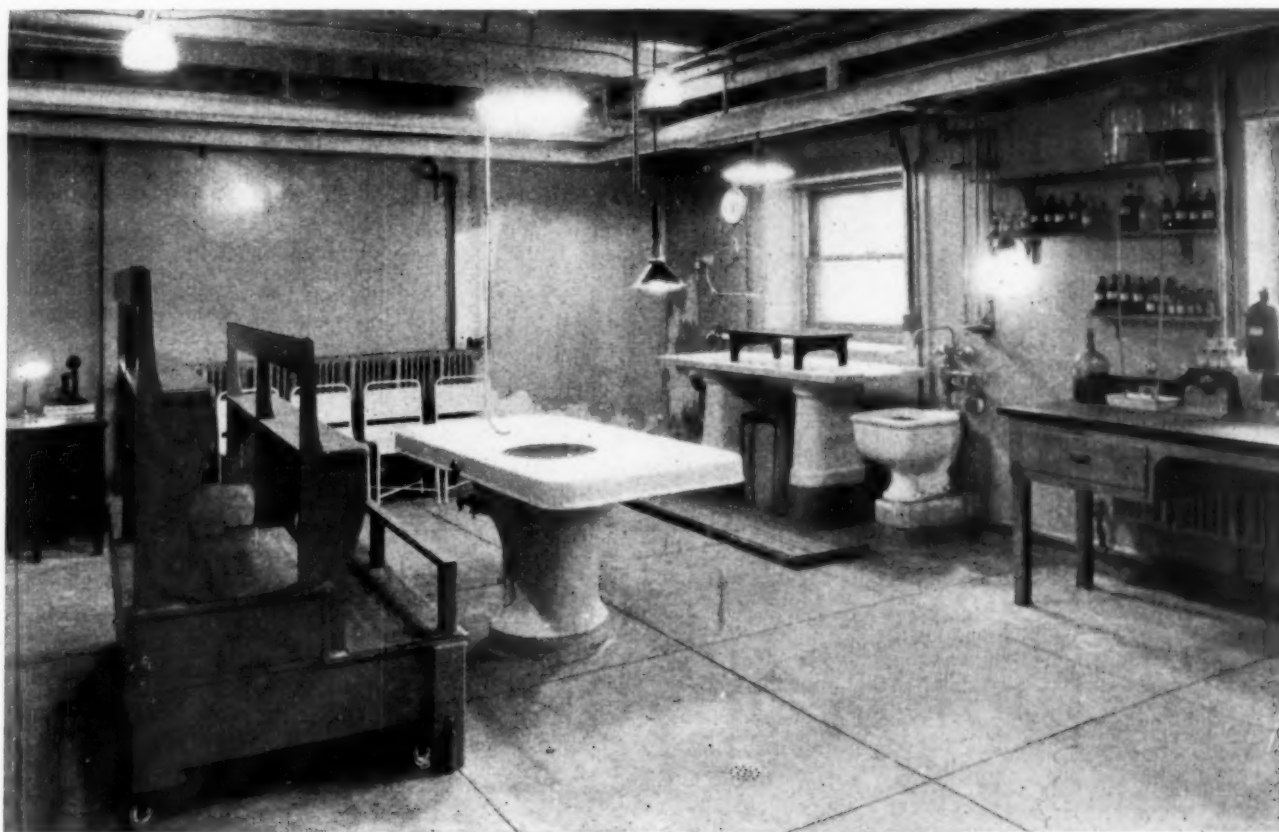
Brooklyn, N. Y.

THE word autopsy has recently fallen into some disrepute in this country and the press of the American Medical Association has gone on record as favoring the use of the word necropsy, admitting however that the older term is still acceptable.

That there are several good reasons for this change cannot be denied. The term necropsy is more literal, meaning the examination of the dead; moreover, the word autopsy has so many horrible and fantastic connotations for most people that it is best avoided altogether when speaking to laymen. Most laymen, even intelligent ones, have a distorted and erroneous conception of the nature of the procedure. This conception is based on tradition, religious principles, sentiment or the grotesque or malicious description of some hospi-

tal employee or stranger who has witnessed an autopsy. Physicians themselves have not been blameless in this regard and many persons have been prejudiced for life by some doctor's careless or sly reference to a postmortem examination or by some medical student's stories of the dissecting room.

It is not only the man in the street who confuses autopsy with dissection; our most enlightened lay friends have similar misconceptions. A judge in a recent decision said, "The right is to the possession of the corpse in the same condition it was in when death supervened. It is the right to what remains when the breath leaves the body, and not merely to such a hacked, hewed and mutilated corpse as some stranger, and offender against the criminal law, may choose to turn over to an afflicted rela-



The autopsy room of the Presbyterian Hospital, Philadelphia.

tive."¹ Part of our campaign for more postmortem examinations must consist in tactfully educating the public regarding the nature of the examination and the respect for the dead with which it is conducted and in exercising a certain amount of restraint when referring to these matters in conversation, bearing in mind how much damage an impression caused by an ill-chosen word can do.

Granting all this, we would abandon the use of the word autopsy with some regret. The derivation of the word indicates that it means an examination of or by oneself. How much more illuminating it is in this respect than the word necropsy, which satisfies only by its literalness. The autopsy is man examining himself; it implies the benefits to be derived not only from an objective examination but from some of the highest subjective attributes of the human animal, insight and self-criticism. In accordance with tradition and present good usage, the words autopsy, necropsy and postmortem examination each have their place and will be used interchangeably in this paper.

The laws governing autopsies are important, since the increase in the number of unjustified lawsuits against physicians and hospitals within recent years has unfortunately enabled unscrupulous individuals to hold the threat of "publicity" against them. No one wishes to risk a suit against himself, especially under such circumstances, and familiarity with the law is therefore indispensable to safety. Hospital administrators, clinicians and pathologists who are in close contact with these problems should familiarize themselves in detail with Weinmann's² excellent article, which I have consulted, and with Schultz's³ summary. There are in general, however, several points of interest and importance on this aspect of the subject that should be considered by every practitioner of medicine.

What the Law Declares

First, one must know that the dead body is not property in the usual sense of the word. No one has the right to dispose of a corpse other than in the manner provided by law, or to abandon it or to have the right of exclusive possession. Those who have the body must dispose of it either by burial or by cremation. However, certain persons are entitled to custody and on them devolve the duty of burial and the right to sign the consent for an autopsy.

There is one exception to this general principle—the living person appears to have a property right to his own body. This is not the case under the English common law, but in this country it has been generally decided⁴ that a person may

specify by will the place and manner of disposal of his body, whether or not an autopsy should be performed or the body used for scientific purposes. He may even sell his dead body, receiving payment for it during life, provided that, as in the case of property of any sort, he does not outrage decency or menace the public health. From the point of view of our study this is of great interest, because it has been held that insurance policies are legal which contain provisions for autopsy on the policyholder to determine the cause of death.

Who Shall Give Consent for Autopsy?

As stated, no one owns the body, yet it becomes the duty of someone to see that proper disposal is made of the body and it is this someone who may give consent for autopsy. The state will ordinarily look to the husband, wife or next of kin to perform this duty. If no relatives can be found, the common law places the responsibility of burial on the tenant or landlord of the building where death occurs or on the superintendent if death occurs in a hospital. In such cases of unclaimed bodies, however, most states have anatomic laws, which require that these corpses be turned over to medical schools for dissection, and this practice usually takes precedence over an autopsy.

It is important to know that even when relatives are found equity principles apply and that under some circumstances it is not essential to get their consent for autopsy. For example, it has been clearly established that when a wife has left her husband to return to her parents and is living under their protection and support, the husband's right to the body of the wife on her decease would be denied.⁵ "A more distant relative, or even a friend not connected by ties of blood may, under exceptional circumstances, have a superior right to one of nearer kin."⁶ The hospital is sometimes, although rarely, confronted with a case of this sort. When, as happened recently, a brother of the patient was living in a distant city and had not seen the deceased for twelve years, a younger brother with whom he had been living and with whom he was on good terms was called upon to sign the consent for autopsy. It must be borne in mind, however, that hospital authorities usually do not have the facilities for determining conflicting claims to the custody of a body. The burden will always be on the hospital to show that it had the reasonable right to believe that the signer of the consent was in a position so intimate and so close to the patient as to establish a superior claim to the custody of the body as against some other contestant. Consent need not be in writing if it is given in the presence of witnesses.

Strictly speaking, the pathologist is not per-

mitted to remove the organs except when further examination is clearly necessary to establish the cause of death. He can expose himself to a suit for damages by his failure to observe this limitation, although such suits are rare. In one case the judge held that the parent after giving consent was "entitled to the whole body, even though necessarily disfigured, unless it proved necessary to remove and preserve some particular organ for further examination, or for evidence. But no one—coroner or doctor—has the right to remove parts of the body and, without consent, throw them into a privy vault."⁷ It is essential to know that it is illegal to perform an autopsy, even when there is considerable doubt as to the diagnosis, unless consent or authorization has been obtained from the proper authorities. A complete discussion of the law regarding the interest of the state is to be found in a report made by Schultz and Morgan.⁸ There is one point that we must always bear in mind: A hospital is liable for performing an autopsy in a case that would naturally come under the medical examiner's jurisdiction if such an autopsy is not specifically authorized by him.

A frequent and important obstacle in obtaining permission for autopsies is that of religious scruples. In many hospitals there is special difficulty with Jewish families although, as in the case of the Gentile, there is considerable variation in the percentage of consents obtained from Jews. At some Jewish hospitals there is a high percentage of consents, as high as 79,⁹ yet only recently a commission in Pennsylvania made the following assertion: "Many hospitals state that it is absolutely impossible to secure an autopsy on a Hebrew."¹⁰

The Undertaker's Side of the Question

Every physician knows how often a patient's family turns to the undertaker for advice and how frequently consent is withheld because he advises against it, and, on the other hand, of how much assistance he can be when the family is wavering. It will not do for us to adopt a "holier than thou" attitude when dealing with the undertaking profession; it is rather for us to find out the nature of their grievances and correct them if we can. The undertaker objects to the delay in giving him the body, to the careless manner in which the body may sometimes be sewn up, to the lack of attention to the care of the body immediately after death and, above all, in corpses that are to be embalmed, to careless preparation of the body which makes his task more difficult.

There have been several conferences between our profession and theirs, and it will be found that intelligent cooperation with them and the adoption

of a few simple rules will repay us many times. First, autopsies should be done promptly and a promise to release the body at a given time should be kept and the pathologist's plans made accordingly. The incision should be closed neatly and any defect made by removing organs or bones should be repaired to give a satisfactory cosmetic result. Nurses should be carefully instructed in the care of the body after death. For example, the head should be kept higher than the body at all times, including the time spent in the postmortem room, so that it does not take on the ugly purplish mottling that must offend all relatives who view the face. The bandage on the jaw and those that tie the hands or the feet together should be wide and soft and tied loosely enough to leave no mark.

The Proper Preparation of the Body

If the body is to be embalmed, special pains must be taken to conciliate the undertaker because his job has been made much harder. Vessels should be carefully tied and should not be left too short and all leaks should be carefully closed. In difficult cases or when the undertaker requests it, he should be permitted to be present before the body is closed. The superintendent should deal severely with any members of the executive office or with minor employees who are found accepting fees to favor certain undertakers.

It might seem strange at first and even paradoxical that the education of the physician must be an important part of any general campaign for more postmortem material. Not only the medical student but the practicing physician as well must sometimes be taught the value of the autopsy. It is small wonder that there is a low autopsy rate in some hospitals when there remains some doubt as to the value of the procedure in the mind of the practitioner. He is often willing, for example, to admit the usefulness of the examination in some obscure and so-called interesting condition and will leave his work to see a case of leukemia or ruptured aneurysm but he is willing to practice medicine without visualizing the pathologic processes he encounters in the bedside material of 95 per cent of his practice and without checking his diagnoses by the best available method.

Any pathologist can give numerous examples of the occasions when a graduate physician has exposed himself to ridicule by belittling an examination in which the cause of death seemed clinically obvious and the autopsy revealed some entirely unsuspected condition.

Four centuries ago Bonetus¹¹ wrote an admonition to physicians of all succeeding centuries: "Let those who interdict the opening of bodies well understand their errors. When the cause of a disease

is obscure, in opposing the dissection of a corpse which must soon become the food of worms, they do no good to the inanimate mass, and they cause a grave damage to the rest of mankind; for they prevent the physicians from acquiring a knowledge which may afford the means of great relief, eventually, to individuals attacked by a similar disease. No less blame is applicable to those delicate physicians who, from laziness or repugnance, love better to remain in the darkness of ignorance than to scrutinize, laboriously, the truth; not reflecting that by such conduct they render themselves culpable toward God, toward themselves and toward society at large."

I am serious when I propose that the hospital prepare the patient for discharge as soon as he is admitted. We hope that he will leave the hospital well and that he will be pleased with the attention he received there; should he die, we hope to have him teach us the cause for our failure and to do so his family must be satisfied with his treatment. Courtesy and sympathetic consideration from everyone who may come in contact with the patient or his relatives, from the doorman to the attending physician, will go far to dispel a still prevalent opinion that the hospital is a place for experimentation and will do much to advance popular trust in the hospital for this purpose as well as for many others.

Asking Permission for Autopsy

If the patient dies, tact and an inner conviction of the justice of our appeal are prerequisites for success in obtaining consent for autopsy. Under ordinary circumstances the doctor who has been closest to the patient and his family should be the one to make the effort. This may be the family physician, some member of the visiting staff or a junior intern, but most often it will be found that the house physician has established the closest contact with the family. After the patient has been put on the dangerously sick list and the family brought to the bedside, he should have spent considerable time with the patient and with the family, more so, perhaps, than the exigencies of the case may seem to demand from the medical side. The family must be made to realize that nothing is being spared to save the patient and that if this is not possible, his last hours are being made as comfortable as possible. They know then that they have no cause for reproaching the hospital or themselves for having neglected any opportunity, and their gratitude will make the intern realize that his work has not been in vain even if consent for autopsy is not obtained. At the same time, constant attendance at the deathbed gives the doctor a chance to create an intimate contact with the rela-

tives, to determine the amount of help he may expect and from whom he may obtain it and to select the most favorable method of approach. That the personal element enters into the success of the appeal has been demonstrated in the experience of every hospital. For example, Dr. F. P. McNamara, pathologist, Finley Hospital, Dubuque, Iowa, reports that one member of the staff obtains consent in almost every case whereas the average for the hospital is only 15 per cent.⁹ Nevertheless, the practice of assigning one man to the task of getting consents is not to be recommended because of the personal nature of the appeal which depends on familiarity with every phase of the patient's case.

The Private Patient's View

One note must be sounded at this point and it carries a message of importance to every member of the visiting staff of the hospital. It concerns the postmortem examination of private patients. The current conception that in these cases consent is more difficult to obtain than in the case of ward patients is largely unfounded. The relatives are often better educated and understand the value of medical progress and problems, and religious objections are not such powerful deterrents. In preparing this study, I have found records of at least a dozen cases in which consents were given quickly and even with eagerness although the attending physician was sure there would be no success and had urged the house physician not to make the effort.

It is on the last type of request from members of the visiting staff that one must dwell at some length. Their objections can be traced to three main sources. First, as pointed out before, they may not be convinced of the value of the procedure. Second, they may feel that the request will compromise their position with the family. If the house physician and the administrative officers are tactful and, in a sense, self-sacrificing, the visiting physician can place the burden upon the hospital and usually, no matter what the outcome of the appeal, he will not compromise his standing with the family. Third and most valid is the complaint that it has been the experience of some men to cooperate in getting the consent and then have the post-mortem examination delayed or a more extensive examination made than the relatives bargained for. Here there is just ground for criticism. No incision should be made that is not approved beforehand, and before starting the autopsy the pathologist should consult on this point with the person who obtained consent. Sometimes consent will be given for a complete examination yet, in the opinion of the house physician, incision of the head should be omitted because of opinions he heard expressed by

the family. In these cases the opinion of the house officer should always be respected by the pathologist.

It is not my purpose to describe in detail the methods to be used in obtaining consent for autopsy but the following points should be emphasized.

The method to be used should be straightforward and the practice of routine threatening or subterfuge should be condemned. If the case seems to belong to the medical examiner's office, he should be consulted before the family is approached so that if permission is granted by him the pain of an interview may be spared them. A study of the religious objections frequently encountered in his hospital should be made by every house officer. The appeal should usually be made by the house physician. A private room, preferably the best and quietest in the hospital, should be assigned to him for the purpose. The intern trying to get consent should be the first to notify the family of the death of the patient, a point that cannot be overemphasized. This function should be taken out of the hands of clerks who are often brusque or indifferent.

The interview should be held as soon after death as possible. If the relatives are permitted to leave the hospital on the chance that they will return, it will often be found difficult or impossible to get the relative whose signature would be acceptable back to the hospital. In these cases, it is sometimes necessary for the intern to visit the home of the deceased.

Full Cooperation Is Necessary

The attitude of the administration should be one of full cooperation. Every effort should be made to ensure the presence at the autopsy of every physician who has come into contact with the case clinically. The clinical pathologic conference should be held at least once a week and should be given a position of major importance in the hospital program. The attitude emphasized by Bluestone,¹² who writes with authority on this subject, should be that of every member of the house staff. The success of our appeal is largely dependent on our convincing the family that the autopsy is of value to them, to the hospital, and to humanity and, in a sense, is not merely a restricted appeal but part of a general campaign of propaganda and education of the public.

We must win a friend every time whether we get the consent or not. We must expect that a large number of requests will be refused, but if they have been handled properly no hospital need admit failure in these cases. If a negative reply is accompanied by an appreciation of the merits of our appeal, we win.

The postmortem room should be given the place of honor and dignity in the hospital which it deserves and should resemble the operating room in location, cleanliness and management. Above its entrance should be placed the motto "Mortui vivos docent"—the dead teach the living.¹³

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How an Out-Patient Would Improve the Out-Patient Department

Out-patient departments in British hospitals as seen by "an out-patient" could by a few changes here and there be immeasurably improved and the percentage of cures greatly increased, according to *The Hospital*.

Suggestions include: a more friendly contact between the doctor and the patient—the patient a person rather than a case; the partitioning off into smaller compartments of large waiting rooms that are poorly ventilated and crowded with none-too-clean humanity, to dispense with the unpleasant effect of herding; relieving the monotony of plain walls and benches by the use of color; utilizing wall spaces for the display of brightly colored artistic advertisements.

A Manual for Physicians, Interns, Nurses and Pharmacists

A compact and attractively printed pocket hospital manual has been compiled especially for the North Hudson Hospital, Weehawken, N. J., by Harry E. Bischoff, former president and for ten years a member of the board of pharmacy for New Jersey.

The manual contains medical terms, types of medication, official drugs, chemicals, vehicles, solvents and hospital formulas. In preparing the work the author's aim was to supply physicians, interns, nurses and pharmacists of hospitals with a reference to standard drugs and preparations now in use.

Goals That Beckon the Medical Social Worker

By EDITH M. BAKER

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THE time has passed when it seemed necessary to justify the existence of the hospital's social service department by an array of arguments concerning its purpose and its accomplishments, but a statement of the present development in regard to functions, organization and educational requirements may be pertinent. Stock taking or careful review at various intervals is wise in any line of endeavor and particularly so in medical social work, which has had a comparatively recent inception and a rapid expansion.

These three phases of medical social work are closely correlated. Functions, the activities appropriate to the profession of this work, which may occasionally differ from current practices, are important as they demonstrate the purpose of the profession, while the organization within the department and of the department within the hospital will tend either to further or to hinder the carrying out of these functions. Education of new practitioners in the field might well be considered a part of function and is essential for the continuance and growth of the profession.

It is evident that the major emphasis in the practice of medical social work has been placed upon case work with individual patients. This assertion is definitely made in the statement of "Minimum Standards to Be Met by Hospital Social Service Departments," adopted in 1928 by the American Association of Hospital Social Workers and endorsed by the American College of Surgeons.

What the Social History Should Tell

Social inquiry, the gathering of pertinent information relative to the personality, social relationships and physical environment of patients, is essential if a hospital is to render adequate service to its patients. This inquiry may be brief or extended, but it should reveal all the facts necessary for an understanding of the patient's illness and of the assets or liabilities he may have for meeting his disability. Social findings rarely contribute to the specific medical diagnosis except, for instance, in cases of psychoneurosis or industrial disease, but they do contribute to the understanding of the

entire health problem of the patient by those in whose care he has been placed.

In some hospitals social examination is undertaken only for certain patients. These may be selected by the physician or the social worker. Frequently specific medical diagnoses may be agreed upon as a basis for choice. Some physicians hold a fallacious theory that only free or part-pay patients require the services of the social worker. They do not realize that personality disturbances or lack of knowledge concerning community resources when found among the comparatively well-to-do may indicate need for the services of the social worker just as much as when encountered among the economically unstable group. It is generally felt, however, that any arbitrary selection of patients for social study based upon such factors as snap judgment, medical diagnosis or economic level is unwise and that the hospital owes this service to all patients.

Getting the Most From the Assembled Facts

Some of the case histories may reveal that there are no social factors relevant to the patient's sickness. It is important for the hospital to know this as well as to learn after a consultation with the throat service that there are no throat complications in a particular case. This 100 per cent contact for social examination may not be possible when the social service department is inadequate in size, as the department must also be responsible for social treatment when it is indicated. The dangers of superficiality and diffusion of effort must be guarded against, but even a brief social history, secured with skill and making clear the essential points, will save much time and waste motion for patients and for the hospital. Therefore social inquiry for all patients is a goal towards which social service departments should strive.

The timeliness of this social inquiry is important. It should be undertaken simultaneously with the medical study in order that the physician may have the benefit of this knowledge when he needs it most. The physician responsible for the care of the patient must relate the social data to other

findings—medical, nursing and laboratory—in order to comprehend fully the interaction of the health and social situation. The data should be readily accessible for his use. This may be accomplished in several ways, either by filling the full social history or a summary of it with the medical chart or by conferences between the physician and the social worker. The interpretation of the social factors that the social worker can give during ward rounds may add much to the significance of the findings and may focus attention on them at a time when they can be of the greatest value as a basis for a complete understanding of the patient and his resources and for outlining a plan of medical social treatment.

The Social Worker's Task

Social inquiry is not just the haphazard gathering of information about a patient's past life and his present needs. It is a systematic undertaking requiring skilled technique and directed towards definite objectives. It includes trained observation, interviewing the patient and the patient group, social inference, the noting of relationships between facts, the distinguishing between facts relevant and irrelevant to the situation, the discovery of underlying causes and the clarifying of assets and liabilities. Therefore these two processes in case work, social study and diagnosis, require a background of training and experience on the part of the social worker undertaking them.

They are the preparation for fulfilling the primary purpose of the hospital, which is treatment of the patient. All social problems influencing, created by or coexistent with sickness cannot be and should not be dealt with by hospitals or their social service departments alone. The social worker does not attempt to be doctor, nurse, teacher, spiritual adviser or lawyer to those under care. She utilizes resources outside of hospital auspices, either within the patient group or the community agencies—health, social, industrial, educational, recreational, religious and legal. A hospital's community is not just the city in which it is located. It is comprised of the home communities of all its patients and they may come from all over the world. Knowledge of what may be expected of social agencies, their programs and functions and clear-cut policies regarding interrelationships is necessary if adequate treatment is to be secured. If there is to be real coordination in the treatment of the health and the social needs of hospital patients, in every instance close collaboration is essential between the physician, who is the medical specialist, and the worker, who is the social specialist utilizing community resources.

Interpretation is the very heart of medical social

treatment. Sometimes it is all that is needed. The mere process of bringing into clear consciousness all factors in a patient's case, both assets and liabilities, contributes much towards the solution of his problem. In other words, it is the means of helping a patient to understand his situation and to help himself. Interpretation of the personality and social setting of the patient to the physician, when he is studying the medical condition of the patient and outlining plans for treatment, is the responsibility of the social worker. It is the continuous process used in the attempt to change the attitudes of patients and patient groups and to secure their participation in treatment. It is absolutely essential in the making of joint plans and in the carrying out of joint treatment involving the patient, the doctor and the medical social worker as well as community agencies. Careful talking over, point by point, of each item of the plan is of great assistance in getting the patient to understand and to see his way to carry out the plan. By means of the interpretative process, the medical social diagnosis is made clear to the patient, to his family and associates and to the social worker in the community agency, and the medical plan becomes an integral part of the patient's scheme of life.

Inevitably the medical social worker has become one of the main and strategic channels through which the purposes and policies of the hospital are interpreted to the community. Day by day in her case work she has the opportunity to relieve fear of the hospital and to correct misunderstandings and explain necessary procedure, thereby bringing the hospital and the community into keener realization of their interdependence in the treatment and prevention of disease.

Who Should Handle Admissions?

The social elements involved in the admission of patients to the hospital and clinic are becoming increasingly recognized, but have not yet been clearly defined as regards the participation and organization of social service in relation to the admitting process. The correlation of the applicant's medical need and the cost of medical treatment on the one hand and his resources and obligations on the other hand appears to be an appropriate medical social activity, while assignment to a suitable clinic or ward implies the need for medical participation in determining the essential features of each one's malady.

Only a few hospitals assign a physician to render medical judgment at the time of the patient's application. The majority expect the medical and social decisions to be made by one person except in unusual or particularly difficult situations. It

appears to have been recognized in some hospitals that the social elements are more vital than the medical elements in the admission of patients, and social workers have been placed in charge of this service in order that decisions might be based upon a deeper understanding of the problems of each applicant. A social worker in even a relatively brief interview can determine the significant factors in the patient's situation more clearly than can any member of the hospital personnel untrained in social case work. Whether social workers in the admitting service should be directly responsible to the administrative unit or social service department is still an unsettled question, the practice differing in various hospitals.

Training the Social Worker

The education essential for social workers undertaking this service has also not been determined. Sufficient instruction in the theory and practice of this particular activity has not been included in the curriculum of our medical social training centers to equip their graduates to undertake this work without close supervision. On the other hand, there may be much in the present system of training that is nonessential. If the present trend to place social workers in admitting services continues, solution of the problem of thorough training for them must eventually be sought by the education committee of the American Association of Hospital Social Workers.

Another activity undertaken by medical social workers in some clinics is the management of patients. This includes conducting patients through the mazes of clinic procedure and the organization and supervision of clinic routine in such a way as to safeguard to the fullest extent the time and skill of the physician and the time and understanding of the patient. It may also mean control of the stream of patients by selection and limitation of intake to the number that can be given adequate care. This is accomplished by means of the appointment system. It is interesting to note the rapid disappearance of the fallacy that a hospital's service to the community is measured by the number of patients admitted rather than by the adequacy of treatment, and appointment systems are frequently being installed as a means of controlling intake. There seems to be a tendency to place the appointment system under the supervision of the social workers even though the actual mechanical details are handled by clerks, for constant instruction and reminding of patients are necessary to the success of the system.

Follow-up work to ensure regular attendance of patients during examination and treatment is fundamental to the medical effectiveness of the

clinic. It is also employed in an effort to learn the ultimate results of operations and the effects of various medical and surgical techniques. The purely mechanical aspects and procedures of so-called follow-up systems, such as letters and post cards to patients who have failed to keep appointments or for research purposes, are minor details in comparison with the instruction and stimulus of the patient while he is in the clinic. The social worker who is in vital touch with the patient during clinic attendance can make the follow-up system personal, individual and hence effective.

While the trend has undoubtedly been towards placing social workers in charge of clinics, appointments and follow-up systems, there is urgent need for careful study of all the elements involved in patient management. Social workers given administrative charge of clinics frequently perform or supervise much clerical work, business details and housekeeping affairs. It is not clear which activities are mainly social in character and therefore appropriate procedures for the hospital social workers to undertake, and which should be the responsibility of other groups—administrative, medical, nursing or clerical. The functions committee of the American Association of Hospital Social Workers is planning a project devised to analyze the nature of the activities involved in these procedures and to define those that may be considered the function of hospital social workers. Their report will undoubtedly influence and guide future development along these lines.

Methods of Organizing the Department

It has long been an accepted function of private social agencies to establish and maintain a new service until its permanent value is apparent and it is transferred to governmental auspices. A similar use of the demonstration method has occurred in medical social work. Social service departments have frequently been organized upon more or less tentative administrative and financial bases by auxiliary groups not officially under hospital auspices. The value of this form of demonstration properly conducted cannot be questioned. Frequently it has made possible earlier attention to the social problems inherent in the institutional practice of medicine than would otherwise have occurred. However, it is essential that its purpose and temporary nature be thoroughly understood by hospital trustees, administrators and physicians and that appropriate relationships be established. There is danger that it may be considered merely as the gracious services of a ladies' committee, half-heartedly accepted by hospital authorities and grudgingly allowed to perform within the sacred precincts of the hospital provided it does not inter-

fere with the established order of things. As long as this attitude on the part of the administrator and the medical staff is implied in the relationships or organization of the social service department, so long will the opportunity to carry out its proper function be limited. Mutual understanding, clear-cut policies and recognition of the ultimate control by hospital authorities will safeguard the establishment of social service departments by lay groups. In many medical institutions the social service departments thus inaugurated have later been incorporated as integral departments of the hospital organization. In others they have remained under auxiliary groups, but are developing sound functional relationships with hospital administrators; in still others the departments of social work were initiated and have remained under hospital auspices.

How Department Can Be Administered

The trend is apparent, however, to place departments of social work under the administrative control of hospital authorities or, in large medical centers, under a coordinated board representing the various medical institutions. Just as the medical, nursing and dietetic services are official departments within the hospital organization, so should the social service department be correctly placed. Only in this fashion can a balanced development and opportunity for appropriate relationships be assured.

The director of this department is usually an ex officio member of the social service committee. It is her responsibility to bring to the committee for consideration problems relating to personnel, adjustment of interdepartmental hospital policies, social case work and community resources and needs.

The support of social service departments may come from the hospital budget, from auxiliary groups or from community funds or chests. Occasionally departments may be financed from two or three of these sources. There seems to be a growing sentiment in favor of placing the social service department under the financial as well as the coordinating direction of the hospital authorities, irrespective of the source from which the funds are derived.

Organization within the department varies according to the size of the staff and the scope and purpose of the institution. Some departments have only one worker, others have a chief or director in charge assisted by a case supervisor, with a staff of medical social workers. In some of the larger departments the director also has under her supervision such workers as nutritionists, occupational therapists and librarians. Workers in small hospi-

tals must of necessity assume varied duties, while in large medical centers workers are usually assigned to special services, such as medical, surgical, pediatric and psychiatric. There may even be further specialization within these services. For example, one of the workers on the medical service may assume responsibility for all tuberculous patients, another for all thyroid patients and still another for all cardiac patients. In other instances, workers may be delegated to teams of doctors. While such specialization may limit the range of experience of a medical social worker, it undoubtedly has made possible closer collaboration between doctor and social worker and has resulted in more efficient treatment. Medicine is facing many problems created by constantly increasing specialization. Medical social workers may have to face similar problems some day and they should be prepared.

Social service departments may carry a three-fold educational responsibility. Medical students and nurses should know something of the personality and environmental difficulties that may interfere with the effectiveness of the medical and nursing care they are rendering. A few departments assume some responsibility for giving this interpretation to the medical students, either through formal lectures, conferences or informal contacts with members of the staff. It is still an unsettled question how the teaching responsibility of the social service department in this matter can best be fulfilled. A steadily increasing number of social service departments have definite educational affiliations with schools of nursing, conducting lecture courses for the entire student body, assisting in case study projects and supervising field observation plans. A special subcommittee of the education committee of the American Association of Hospital Social Workers is studying the factors involved in this teaching program in order that recommendations may be made concerning the content and method of such courses. Departments of social work in cities where formal training in medical social work is conducted have frequently established educational affiliations with such training centers and provided supervision in field work practice.

Present Training Requirements

Medical social work as a profession is just emerging from the stage in which law and medicine were a few generations ago, when educational standards were limited and control almost negligible. For a number of years the education committee of the American Association of Hospital Social Workers with the assistance of the educational secretary has been studying and working

towards a solution of the all important problem of thorough training for medical social personnel. The nine training centers now established, with a tenth one in process of organization, are demanding a minimum of a two years' period of training. This may comprise a senior and postgraduate year of work or two postgraduate years. The two major problems confronting the schools are the content of medical information courses and the organization of the field work experience. Much has been accomplished regarding the former problem, information has been gathered concerning subject matter, comparisons have been made and principles formulated. A start has been made on a thorough analysis of field work teaching. Year by year improvement in training is becoming an accomplished fact.

The Goal of Social Service

In her annual report this year, the educational secretary made the following statement regarding the training centers: "Each school has its own goals but fundamentally the important problem is the same—to bring such a coordination in theory and practice that a medical social worker will result who is acquainted with the problems in the modern hospital, who understands the social component in medicine, who is aware of what has influenced and promoted the growth of social service, who can with a degree of skill practice medical social case work, who will see in the experience gained from an accumulating case load the implied responsibility to contribute to and share in the social and health programs of the community, who knows the important literature of our own and allied fields and who aspires to contribute creatively to new thinking and improved practice in the years ahead."

Fifteen years ago at the National Conference of Social Work, Dr. Abraham Flexner, New York City, presented a paper entitled "Is Social Work a Profession?" He suggested seven tests of professional status. One of these tests was in regard to training. He felt that a profession must have a content that can be transmitted by a specialized educational process to those desirous and capable of learning it, just as it is possible to train doctors, lawyers and teachers in an exact and standardized fashion. The American Association of Hospital Social Workers has accepted this challenge. Year by year it is striving through critical analysis of content and method to add to the understanding of the problems of training in order that medical social education may eventually be organized upon a sound professional basis.¹

¹Read at the annual meeting of the American Hospital Association, New Orleans.

How St. Luke's, Chicago, Plans to Care for Needy Patients

To provide funds to care for patients who are unable to pay for hospital care, St. Luke's Hospital, Chicago, is organizing the St. Luke's Hospital Association. A booklet which has been titled, "Not for Profit," tells of the work of the hospital among the sick poor and describes the part of the association in this work.

The classes of membership in the St. Luke's Hospital Association, together with their dues, are as follows: life members, \$1,000; corporate members, annually, \$100; associate members, annually, \$50; sustaining members, annually, \$25; participating members, annually, \$10. This arrangement allows all persons to participate in a manner consistent with their means.

The booklet tells briefly but feelingly the history of St. Luke's ministrations during the sixty-seven years of its existence. Last year more than 3,000 families in straightened circumstances were dependent upon St. Luke's for hospital care. During 1930, 3,380 persons received treatment without cost. The 43,395 days of free treatment to these patients were given at a cost of more than \$200,000 to the hospital, a cost that would have been much greater had not sixty-eight physicians given freely of their services.

Each year the number of needy persons who must be cared for at St. Luke's Hospital is increasing. It is to meet this demand that the association has been organized. Membership is open to every friend of the hospital who wishes to see its work carried on among families unable to pay for medical care and hospitalization.

Alfred Hospital Finds a Dietetic Unit a Money Saver

Since the establishment of a dietetic department at the Alfred Hospital, Melbourne, Australia, under the leadership of Mabel G. Flanley, American dietitian, a saving to the hospital, 350-bed institution, of £268 has been effected. Miss Flanley, who went to Australia early in 1930, has also been consulted on the plans for the dietetic departments of four hospitals now under construction in the state of Victoria.

The training of dietitians at the Alfred Hospital has been carefully worked out. The training period is six months and preference is given to those who have the bachelor of science degree or who have taken a course in domestic economy and institutional management.

Practical Administrative Problems:

Increasing the Hospital's Income in Times of Economic Stress

By JOSEPH C. DOANE, M.D.

Medical Director, Jewish Hospital, Philadelphia

IN THE past few months the whole world has been undergoing a period of economic stringency. The hospital is but one of many institutions that have felt this financial pressure. In the industrial life of the community, when the income resulting from the turning of manufacturing wheels dwindles, those in charge are prone to adopt a policy of retrenchment and thus they safely weather the financial storm. Employees may be allowed to work but part-time. Salaries or per diem or per hour rates of pay may be reduced, or the plant itself may be closed as a temporary measure.

In the conduct of the community hospital it is not possible to adopt such businesslike expedients because, varying greatly from the commercial laws of supply and demand, the requirements of the hospital increase as money grows scarcer. In times of plenty, the drain on the hospital's resources is lessened because those who are ill are not prone to ask for charity. It is carrying a heavy free load that most embarrasses this community activity. Moreover there are many intricate reactions that take place in the life of the community when industry and public utilities face the need for retrenchment. This is true because from the pocketbooks of those business men who are manufacturing and driving trains, steamships and street cars comes the flood of charitable dollars that makes possible the carrying of this load. Those activities, therefore, that depend in a large measure upon the generous impulses of wealthy citizens quickly feel the effect of a depression and eventually must seriously alter their course of action, else disaster should await them.

How Hard Times Affect the Small Hospital

In the small institution that is unendowed and is living financially from day to day, insofar as the balancing of income and expense is concerned, this decrease in community support is soon felt. Here one does not find a stabilizing reserve upon which demands can be made until more normal

times return or until some expedient can be adopted either to lessen the expense or temporarily to increase the income. In the hospital of 100 beds or less in a suburban or rural community a successful search for the answer to either of these problems is difficult. It may use up a dwindling and wholly insufficient endowment fund to meet the monthly deficit. It may endeavor to conduct a community drive and thus, by informing the citizenry in general of its desperate straits, it may tide over an emergency for a number of weeks or months. It may accumulate a sizable deficit by urging merchants to grant credit until a more favorable economic period arrives. It may endeavor to combine with a larger institution, or it may close its doors and bravely announce to its clientele that it can no longer exist honorably and that it will not endeavor to do so in a dishonorable manner.

Forcing Out the Poor Hospitals

One of the beneficial effects of the difficult situation that has existed for the past months is that some smaller institutions, poorly equipped and with a questionable excuse for existence, have been forced to realize their inadequacy and have ceased to function. The trend of modern times in hospital administration seems to point toward the financial difficulty that all small unendowed institutions must eventually face, unless the medical need in the community is so great that aid from without can be secured. It is an interesting fact that in 1930 more hospital days' service were rendered in the United States than at any time previously, and yet fewer days of private and semi-private service were given. This increasing strain on hospital revenue must reach a maximum at some early date and hospitals that are not willing or able to bear a proportionate share of the load must be forced to announce to the public that they are truly proprietary institutions, deserving none of the charity of the community because they offer no facilities for free work.

Hospitals everywhere are experiencing a general decrease in the percentage of occupancy of all types of facilities except the wards. In other words, the high priced private rooms of which hospitals formerly have been so proud, are now likely to stand idle while their former occupants patronize less expensive accommodations. Moreover, those who formerly occupied private rooms of a less expensive type are now most likely to be found in semiprivate wards. And those who formerly occupied the latter accommodations are now frequently seen in public beds. The result of all these changes in the financial program of our community life has been similar to the experiences of many individuals. He who has patiently saved, day by day, in times of plenty, calmly and hopefully pursues his normal course of action, practicing economy where he can. The hospital which has been able to practice methods of thrift in other days is unperturbed by the present situation. But unfortunately, in many instances no reserve has been accumulated, and when such is the case, these institutions are prone to resort to practices of questionable ethical soundness on the basis that the end to be secured justifies the means that are adopted.

The Trustees' Position

The problem now facing many a disturbed board of trustees is made more difficult because they themselves are inclined to participate in the exemplification of a false psychology. For example, ideas of intense loyalty to an institution may at times reflect themselves in acts wholly unjustifiable in the light of present day ethical standards. On the other hand, underlying valiant attempts to continue a hospital's activity, there may be praiseworthy recognition of the existence of a real need in the community, coupled with an intense desire to alleviate the distress of the great economic substratum that every locality possesses in some degree.

There may exist as causes of such questionable procedures a false pride, manifested by an unreasoning desire not to allow competition of any sort to force an acknowledgment of defeat. On the other hand, there may be found an absolute lack of recognition of the existence of a code of ethics, unwritten though it is, which should govern the conduct of a hospital as well as the activities of the members of any profession or trade. In *THE MODERN HOSPITAL* on many occasions there has been stressed the indisputable need for a definite detailing of a code of ethics to govern the actions of board members and executives as well as other members of the personnel. The last two years, therefore, have been most unusual from

the standpoint of bringing to light all sorts of plans for raising money for the community hospital. While it is not the purpose of this article to endeavor to lay down any hard or fast rules governing ethical procedures in hospital management, it appears helpful and timely to comment briefly and concretely on several types of activities that have been more or less prominent in the recent past.

Ethical Buying

It is believed by many executives that it is neither ethical nor fair to the retailer or wholesaler to insist on a donation of a part or the whole of the profits upon goods sold to the hospital because the latter finds itself in financial straits. This practice, under some guise, seems to be too common throughout the hospital field. It is not thought to be an act of either justice or wisdom for a hospital executive to intimate that unless a firm chooses to sell goods to the hospital at a cost price or at a cost plus the expense of merchandising, it will not in the future receive the patronage of his institution. Such methods smack of sharp dealing and bring about a situation whereby merchants in an effort to defend themselves against an almost indefensible pressure will be tempted to charge an exorbitant price whenever it is possible in order to recoup losses on other sales. It is not felt to be ethical or fair for information to be given one contract of the probable or actual bid price on an article that has been submitted by a competitor. No pride in the existence of a hospital, its work or its service can justify unfairness of a commercial type. In some instances, when bills are actually returned to a jobber with a check from the hospital for a sum less than the amount of the bill, firms are made to feel that a donation will be acceptable and that unless it is forthcoming no further hospital patronage need be expected.

Supplying Good Goods Reasonably

It is not my purpose to insinuate that all donations from merchandising firms are to be looked upon as a direct bid for further business. This is far from the case in many instances. Nor is it being suggested that an extra discount is given by competing firms for the sole purpose of unfairly retaining hospital business. On the other hand, any implication by the hospital itself that unless contributions are given or unusual discounts are allowed a given firm will not be patronized, appears to be unfair. The supplying of good goods at a reasonable price, with the guarantee of a reliable firm fairly and faithfully met when these articles prove unsatisfactory, is all that the hospi-

tal should expect from those who compete for a share of the institution's business.

Some executives have been tempted, without the knowledge of the clientele of their institutions, to raise the charge for extras in an attempt to increase the amount of money that may be secured from the public. Here again is evidence of lack of fair dealing adopted in desperation in an effort to maintain the very existence of the hospital. Such expedients do not usually prove profitable from a business standpoint and when such acts are discovered, as they are sure to be, the loss of the confidence of the community will more than offset any financial gain.

Of still more pretentious proportions is a scheme that one observes here and there in the course of development. This plan contemplates the furnishing by the hospital of medical services to individuals and to families in the community at a standard fixed rate per annum. Such a plan, in reality, represents contract medicine on a large scale, with the hospital playing the rôle of the general contractor and the individual physician that of a subcontractor. In a certain institution in one of the smaller cities in this country, a hospital has undertaken to canvass citizens and persuade them to participate in a plan whereby the institution offers at twenty-five dollars per person or one hundred dollars per family a year's medical and hospital service. In this particular case, it is announced that the plan will be tried for twelve months and that the members of the hospital staff will decide the necessity of hospitalization in each case. All types of disease will be treated except obstetric cases.

Dangers of Health Insurance Plans

In reality, the effect of such a scheme is to put into force a type of health insurance, with the hospital acting as the insurer and as the agent by which medical service is furnished. One can imagine the serious straits in which such a hospital would be found if an epidemic of grip or any other of the transmissible diseases were to occur. Such a proposition has many potentialities that do not appear on the surface. For example, the hospital with this plan becomes the center for serving all community medical and surgical needs—a commendable feature. It becomes the main contracting party, with the physician in a subordinate capacity becoming the agent of the hospital.

In some respects, such a plan might be workable in a community in which there is little or no institutional competition and which is at a sufficient distance from urban medical centers so that those members of the community who are most able to

pay would not be often attracted to the city hospital. Nevertheless, there are elements of financial danger in such a contract, and the relations of the physician to the hospital, particularly from a financial standpoint, are likely to become exceedingly complicated. It also appears possible for difficulties of a personal and professional nature to arise, which would complicate the always sufficiently difficult ethical relationships between physicians.

Group Contract Practice Condemned

There are other types of group contract practice that have been recently inaugurated here and there. These have usually been originated by individuals with financial aspirations rather than by the physician or the hospital. In these instances, the cooperation of a hospital is often sought and a proposition submitted for the treatment of patients on a mass basis at a reduced price. The same type of offer is made to the physician with the hope of securing medical service at a fixed sum per annum per person.

Such schemes are likely to succeed financially if it proves possible to secure qualified physicians who are willing to ignore ethical considerations and to elevate the importance of financial ones. It is certain that with any of these plans, all of which show a trend toward contract practice, the chances of the ailing man or woman to be treated as an individual and not as a unit of a great whole are exceedingly slim. Moreover, the contract doctor has not always been looked upon with the highest esteem by his professional colleagues. Sufficient has been said to indicate the dangerous possibilities of yielding to financial pressure by the adoption of practices of questionable ethical wisdom. Most of these schemes are neither financially successful nor ethically sound. They represent the will-o'-the-wisp of hospital administration and as a rule should not be adopted.

There are a number of commendable procedures that the hospital may try which in some instances will augment incomes and will leave no blemish on either the ethical reputation of the hospital or on the physician.

Paying in Advance for Maternity Care

The maternity club plan has been practiced under some guise for a number of years. In many hospitals it has been the custom to require the payment of from three to five dollars per monthly visit to the prenatal clinic, with the idea of establishing a credit of from forty to fifty dollars to be used at the conclusion of a pregnancy when hospital care is needed. It is of especial interest to note the punctuality of payment so often

manifested by these patients. They seem to take a certain pride in the fact that each payment brings them nearer to the possibility of meeting in full their expected hospital expense.

The delayed payment plan is one that has much to recommend it. This scheme is applicable to any type of hospital service. For example, a patient requiring treatment for an acute medical or surgical condition may upon his entrance to the hospital announce the fact that sufficient money is not at hand to meet his financial obligation immediately. It is far more honorable and satisfactory for this announcement to be made at the beginning than at the end of a hospital stay. Frequently this information is not given the hospital until the patient is ready to be discharged. A definite agreement to meet the hospital bill in the shape of a legal contract may be drawn, in which the patient promises to pay upon discharge from the hospital a stipulated sum per week, per month or even per year. In this way, patients retain their self-respect and are prevented from voluntarily stultifying themselves and from being considered as purely charity patients. It is a matter of some question whether the greatest good accrues to the hospital from the money it thus receives or whether the hospital has bestowed upon the community and the individual the greater benefit by refusing to allow a patient to receive free something for which he might later pay.

Other Payment Plans in Use

In a certain midwestern city another interesting plan has been evolved which contemplates the appointment by a nearby reputable bank, of the credit officer of the hospital as a minor official of the banking institution. Upon the discharge of the patient, a note is signed that nominally represents a loan from the bank. This is witnessed by the bank's officer who is also an officer of the hospital and by a second hospital official. The executive reporting on the use of this system comments on the surprising fact that people are more inclined to meet obligations at a bank than those at a hospital and that during the course of a few months under this system only 1 per cent of the sums thus owing the hospital has been lost. There is much meat in this suggestion. Moreover, this plan takes advantage of a certain psychology relative to the binding quality of obligations that are incurred at a bank. The bank, of course, in this instance is financially reimbursed by virtue of receiving 6 per cent interest on these loans made to hospital patients.

Many institutions are learning that it is to their financial advantage temporarily to utilize large

and expensive private rooms as semiprivate wards for two or more patients, and are receiving a greater return from the use of these rooms than they would were they occupied by but one patient. From an administrative standpoint it is of the greatest importance for a hospital to be flexible enough to adapt its scope and its type of service to the temporary economic needs of the community. A readjustment of room rates frequently creates a greater usage of private facilities. This expedient is perhaps a necessary addition to any institutional policy that has as its aim the adjustment of its service and its rates to the pocketbook of the community's citizens. And yet such a plan of the readjustment of price, while proper, is not likely to increase the income of the hospital in a great measure.

Paying for Employees' Sickness

In some instances, the employer is willing, if properly approached, to carry the sickness costs of deserving employees who find themselves temporarily without funds. This expedient has been rather useful to a number of faltering institutions, and it is surprising how financially helpful the adoption of such a policy will prove in many instances.

Much has been said in the past in regard to the rôle various health insurance plans play in assisting the financial program of the hospital. The Save-for-Sickness Clubs have not won the same popularity as have Christmas Clubs. Perhaps the elements of uncertainty as to when sickness will occur in a family is one impediment to their success. It appears that the more general adoption of some variation of this plan only awaits the leadership of an individual who is able to work out details that will prove more attractive to the public than those that have been presented in the past.

Giving Room Rent Instead of Flowers

It would be a splendid plan, although one not likely to meet the whole-hearted approval of wholesale and retail florists, if under some circumstances at least the patient who is distressed as to the means by which the cost of a private room is to be met could receive a credit slip from the hospital office guaranteeing free room rent for one or more days rather than the splendid bouquet of flowers which fade so quickly. In some cities fraternal organizations have adopted this plan, the members pledging themselves to contribute toward meeting the hospital expenses of an ailing colleague instead of sending him flowers while he is in the hospital.

The whole question of successful hospital main-

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tenance is more and more becoming focused on two points, first, that no institution worthy of the name of a general hospital can long exist upon its earned income which often approximates but slightly more than 50 per cent of its expenses, and second, that institutions are in a financially precarious state if they rely wholly upon an unabated and continuous flow of charitable dollars. The general trend of hospital administration is to encourage the use of the large well equipped generously endowed institution, which is financially able to weather local economic flurries. Institutions that are forced to adopt questionable practices in order to exist should carefully scrutinize themselves to see if there is need for their existence. It would be fairer to ailing men and women to announce that money is not at hand with which to provide the modern service they expect than to continue to submit them to incomplete and ineffective medical treatment.

Useful Knowledge for Buyers of Disinfectants

That most persons seem to think that a disinfectant acts in some magic way, and that all that is necessary is to apply it and all will be well, is the opinion of G. L. A. Ruehle, senior bacteriologist, Food and Drug Administration, Department of Agriculture. Practically everyone knows that disinfectants have something to do with controlling or killing germ life, he says, but few persons know anything about the scientific facts behind the use of disinfectants; and few know that an understanding of these facts would make it possible to buy and use disinfectants more economically and more effectively.

"The concentration at which a disinfectant application is made is extremely important—in fact, this may be the deciding factor in the power of the disinfectant to kill germs," Mr. Ruehle continues. "Disinfectants also vary in character, and should be selected for use according to their fitness for the purpose in view. All disinfectants are not alike.

"A disinfectant is an agent which will kill the vegetative forms of disease germs but which will not necessarily kill the spores. Spores are the resistant forms in the life cycle of certain bacteria and other micro-organisms. Fortunately, only a few species of germs produce spores. The term 'disinfection' should not be confused with 'sterilization,' which means the killing of all forms of life, including spores.

"Scientists have found that all germicidal sub-

stances do not kill germs in the same way. The process of killing germs is not a simple one, and many factors are involved.

"Contact is of primary importance. In order for a chemical disinfectant to kill germs the chemical must come into close contact with them. If a germ is protected by a film of grease or albuminous matter, or if it is deeply embedded in the material to be disinfected, the disinfectant probably will not come into contact with it and, hence, will have no germicidal action in that particular case. This means, in most cases, that surfaces to be disinfected must be mechanically or physically clean before effective action can be expected.

"The concentration of a disinfectant is also to be considered. Carbolic acid in weak solutions will retard the growth of bacteria, and in strong solutions will kill them, but such weak concentrations of carbolic acid can be made that the disinfectant has no effect whatever. Certain disinfectants in very weak solutions are actually stimulating to bacterial life.

"Another deciding factor in the effective use of disinfectants is the time element. We find that at a certain concentration a disinfectant fails to kill certain bacteria in five minutes but does kill in ten minutes. A disinfectant in another concentration may kill in five minutes but fail in its effect in four minutes, or in one minute.

"Probably few persons know that disinfection is more effective in the presence of water than in the dry state. This is true whether the process is accomplished by the application of heat or of chemicals. Some manufacturers do not realize this, and they may recommend kerosene solutions of chemicals for disinfection purposes, whereas the product happens to contain a chemical which is a disinfectant when properly dissolved or emulsified in water, but which has no such power when dissolved in kerosene.

"Some disinfectants are markedly affected by the presence of organic matter. Hypochlorites and soluble salts of mercury, for example, are effective disinfectants in very weak solution when there is a practical absence of organic matter, but they possess little disinfectant value in the presence of such matter.

"The selection of a suitable disinfectant is no easy matter. Sometimes the selection is complicated by purely outside considerations. A disinfectant may have a vile odor, and therefore be of questionable use in connection with foods or utensils used for food production. Many disinfectants corrode metal and cannot be used on metals. Many are caustic and burn the skin or tissues of the body. Practically all of them are poisonous when used carelessly."

Editorials



A Broader Service for the Teaching Hospital

WHAT are the functions of a teaching hospital? Are they only those of assisting in the furtherance of medical education and serving as a laboratory for the students in the university or has the teaching hospital other and equally important duties to perform for the betterment of medical practice and the health of the community.

For years it has been contended that the superintendency of a hospital was in effect the practice of administrative medicine because the hospital administrator conducts the workshop of the physician and surgeon, trains nurses, gives valuable experience to interns and all others who will later be potent factors in promoting the public good. If this premise is sound then the hospital that is connected with a university or medical school has a greater responsibility than merely acting as another classroom building for the teaching of students of medicine and it should so broaden its base as to include the instruction of hospital administrators, social service workers, nurse instructors, hospital accountants, in fact all those who would serve the sick no matter in what capacity. It is true that some teaching hospitals do carry on indifferent courses of instruction for technicians but only as a side issue and often only as a matter of convenience for the administration of the institution, not primarily for the good of better health or from any more noble motive than the saving of money.

The suggestion that these institutions because of their superior facilities and position in the general scheme of medicine should enter into serious teaching of department heads and technicians is given as a challenge which we hope will not go unanswered. It seems to us who stand on the sidelines that those who are responsible for the university hospitals should get together and devise ways and means for extending education. One of the most interesting sections of the American Hospital Association is the teaching section, which each year holds a luncheon and session at the annual convention. Among its personnel are some of the keenest minds in the hospital field and from these leaders should come a course of instruction

in hospitals that would be practical and thorough. At the present time there are no schools where the ambitious may learn the intricacies of hospital administration and it is doubtful if any one school will ever be established. Yet if hospital administration is to advance and if it is to become something more than just a job, determined effort must be made to train not only those who are already engaged in hospital work but also those who have the ability to take over responsibility when the opportunity arises.

Those who conduct our teaching hospitals are the logical ones to formulate the proper curricula and it is devoutly hoped that when the meeting in September takes place some thought will be given to the possibilities of such training.

Morbid Curiosity

HOSPITAL executives are frequently confronted by sensation seeking lay persons who desire permission to view operations or to be present at postmortem examinations. Later, should such requests be granted, circles of equally morbid and inquisitive friends are likely to be thrilled by lurid and often somewhat exaggerated and sanguineous accounts of the technique of a laparotomy or the steps of an autopsy.

Nonmedical persons should not be granted such privileges, whether the request emanates from friends or relatives of board members or of the patient himself. No good purpose is served by the presence of the morbidly curious in the operating room, and surgeons and nurses are too much concerned with ministering to the patient to revive fainting sight-seers.

The Family Doctor

THERE is much comment in this day and generation, relative to the passing of a figure very familiar to the community life of half a century ago. Next perhaps to the clergyman, did the trusted man of medicine of yesterday find a whole-hearted welcome into the innermost circles of rural family life. 'Twas he who first greeted the newborn and who closed the eyes of the aged. He was a trusted confidant, adviser and friend.

But to-day the term "family doctor" carries with it something of an implication of incompetency—an apology for the absence of specialized skill and knowledge. Against the scintillating brilliance of both young and seasoned specialists, he presents something of a somber background. And yet, the careful experienced

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self-sacrificing general practitioner is the bulwark of to-day's medical citizenry. No proclamation of unusual wisdom escapes his lips. He is more inclined to remain discreetly silent when new and oftentimes theoretical questions of diagnosis and treatment are under discussion. He is given to think largely of practical matters, and, unacquainted as he may be with the more recent dicta of the laboratorian, he still is able to meet, in a most satisfactory manner, a large percentage of the needs of the sick in his community. 'Tis he who often rather timidly requests the admission of his very ill patient to the hospital—hesitatingly, as though he feared to identify himself as a nonstaff member who therefore could request but could not insist on such a service.

The wise hospital executive will cultivate the acquaintance and patronage of the neighborhood doctor, for to be so styled should carry no suggestion of incompetency. In truth it not infrequently guarantees a peculiarly well rounded medical ability, such as often is not possessed by the doctor's better recompensed specialist colleagues. To encourage the full use of the hospital by the family doctor is to build solidly for the future—to generate a public confidence in the institution that will remain intact through both fair and foul economic times.

The Question of Flat Rates

IN ANOTHER part of this issue will be found an article in which flat rates for various types of cases are discussed. During the past year greater attention than ever was given to this subject, particularly as it applies to maternity cases, tonsillectomies and other specialties where it is possible to determine fairly accurately the length of stay and the charges other than that for the room and board.

Increased business has resulted when flat rates have been instituted, yet there are those who question whether or not the hospital has actually increased its gross profits with the increase of gross revenue. Others raise the point of whether such a system is or is not good business practice and whether it does not border upon that greatest of all bugaboos, state medicine.

Doctors' fees are usually not included in the hospital's flat rate charge but often some arrangement is made whereby the doctors agree to charge these patients a flat rate, which in the end means that there is little difference whether the doctors make a charge or whether the hospital makes an inclusive charge and then pays the doctors for their part of the treatment. Of course if the doc-

tors themselves do not object to this arrangement it would be foolish for the hospitals to question it. The administrator should be concerned only with whether flat rates are ethical, practical and of definite benefit to both the patient and the hospital.

The flat rate is not a panacea for the hospital's ills and is not going to solve all of the financial problems. When it is used generally in all hospitals it will only mean that cut rates are in practice and then the astute superintendent will have to look around for some further cut to meet the competition, and before long all hospitals will be the losers, service to the patient will be poorer and we shall have gone backward in hospitalization rather than ahead. A far better idea would be the education of the public to the benefits of the hospital and hospitalization, rather than an admission that all these years the hospital has been overcharging the patients for certain of its services.

A Controversial Subject

IN THIS ISSUE of THE MODERN HOSPITAL is to be found an article on the relation of the hospital pharmacy to the public which was written by the president of the oldest school of pharmacy in the United States, the Philadelphia College of Pharmacy and Science.

Dr. Wilmer Krusen, formerly the commissioner of health of Philadelphia, a professor of surgery for many years, the possessor of honorary degrees, is entitled to the fullest degree of respect when he speaks on any subject touching on medicine or its allied professions. When he states that the average hospital pharmacist has sufficient institutional work to occupy his time no executive will seriously disagree. That to compete with commercial drug stores would require a radical readjustment of institutional aims and traditions is also no doubt true.

But Doctor Krusen's opinions will certainly not meet the full approval of all hospital administrators. THE MODERN HOSPITAL will welcome comments on this subject.

Pathology or Personality

THE practice of medicine does not represent the application of the laws of an exact science. The experience of both physicians and hospitals has, on many occasions, proved that any routine attempt at generalization in the treatment of the sick, is certain to prove ineffective.

While every volume on therapeutics endeavors to set down the optimum dosage of each drug em-

ployed in the combat against disease, such concise statements can represent but the average, and not always the safe or even the most efficient quantity. The physiological reaction to drugs varies almost as greatly as do the physical or personal characteristics of the patients. Generally, moreover, the effect of sickness and poverty and discouragement on human character is far from test tube simplicity. Nobody knows when unexpected traits of character will be developed by adversity or when natures otherwise generous and patient may be rendered selfish and fretful by the effects of disease.

The physician and nurse must be thorough students of psychology. They must be able to treat not only the aberrant functions of the organs of the patient, but the personality, the soul, of the patient as well. The great Virchow cautioned his contemporaries to treat not alone the disease but also the man. Henry Van Dyke commended physicians who wrought conservatively, yet efficiently, employing tonics with discretion, sedatives with wisdom and narcotics with parsimony. One might safely complete specifications of the careful physician by advising that the scalpel be applied with gentleness, with conservatism, and yet with unerring and curative precision.

Nevertheless, the possession of all these laudable attributes by the members of the staff of a hospital in no way guarantees a complete community service. Surgical and medical skill comes with the ripening experience of years. An understanding of human psychology is even less likely to be acquired during the pursuit of scientific knowledge because of the failure to recognize its importance. Hospitals cannot become soulless mills for the administration of medical treatment. Physicians should be more than efficient automatons. The board of trustees must frequently lift its eyes from the balance sheet long enough to make certain that those indispensable services that are not priced on the institutional rate card are being generously supplied.

Let Us Be Forehanded

WITHOUT shouting calamity, it is time that hospital administrators studied their many problems and particularly the one fostering good will.

During the past months the sick of the community have been cared for whether money was forthcoming or not and collections from those who were supposed to have money have been slow and difficult. Yet most of the hospitals have struggled along somehow and while many of them

have suffered keenly they have kept their doors open and the type of service to the patients has been on the same high plane that it has always been.

Let us hope that within a few months conditions will take a turn for the better and that from then on they will continue to improve until perhaps it will not be too much to expect that times will be as good twenty-four months hence as they were twenty-four months ago. When this happens patients will again be occupying our best rooms and calling for our best service. Incidentally they will be abusing hospitals, hospital treatment, hospital costs, just as vehemently as they were two years ago unless we see that something is done about it now.

It would not be good policy to capitalize upon the amount of charity that is being done now but it is extremely important that every hospital superintendent map out a program of public relations that will forestall any unjust criticism that may be leveled at his institution later on. Only by keeping the public informed as to what the hospital is and what it is doing for the community will it be possible to overcome unthinking utterances. The time to do it is before rather than after they are made.

What Is the Saturation Point?

IN SLIGHTLY more than two decades the number of hospital beds available for the care of the nation's sick has increased 125 per cent. An increase of twenty thousand beds in each year during this period represents a huge outlay both of money and of self-sacrificing service by generous men and women everywhere. Perhaps those beds situated in governmental institutions represent the greatest unit that has contributed toward making up this increase.

In many instances these increased facilities were badly needed. In not a few cases, the outlay of money for added hospital beds has represented more than a gross extravagance—it has approached an act of foolhardiness. Overbuilding, or in some cases building at all, has resulted from not carefully studying the need for hospital service—from leaping before looking at the future of the venture.

After all, hospitals require both materials and money to make possible their humanitarian contribution. The shortage of both of these commodities may in one respect, at least, serve the useful purpose of curbing the inclination of those who would build first and later would regret their action.

Is Your Problem Answered Here?

IS A SELF-PERPETUATING BOARD OF TRUSTEES DANGEROUS?

An institution of 400 beds in an Eastern city recently added a fine wing containing 150 private rooms. The superintendent is progressive, and yet he is continually handicapped by interference from members of his board. A multiplicity of committees exists, the chairman of each feeling that he is directly responsible for the administration of the department or activity denominated by the name of his committee. These well-intentioned persons even attempt to engage the personnel of their departments and to control the firms from which supplies are purchased. The members of this board hold office from year to year without reelection, the president having held his position for at least a quarter of a century. The situation has caused the hospital to get into a marked rut. Difficulties have arisen between members of its staff, and though it has a fine plant and a generally high type of personnel it is not rendering the service to its community that it should. A group of younger staff members and of contributors are endeavoring to bring about a reorganization of the hospital, but there appears to be no practical means by which this can be done. It has been delicately hinted to the chairman that he should resign and allow a younger man to succeed him. Because of pride and family tradition, he refuses to do this.

A self-perpetuating board of trustees, if it consists of conscientious men and women who possess high ideals and who understand administration, often represents the finest type of hospital organization. On the other hand, the reverse may be the case, since stagnation results because of a lack of recognition of the shortcomings of the board. The creation and development of a hospital association whose members consist of all those who contribute to the institution are not without administrative dangers. And yet such a policy is much more democratic and desirable than one which exists in the hospital under discussion.

Of course, a firm demand from a supporting public that the hospital be reorganized would bring about the desired effect. However, due to financial, political, social or other considerations, this is an uncertain curative measure. Members of a board of trustees should be elected to serve on a five, three and perhaps two-year basis, two or more vacancies

being created annually. The chairman of the board should not serve indefinitely nor should he be allowed continuously to succeed himself. Nevertheless, too frequent changes in officers may do harm.

In this particular hospital, it is suggested that a reorganization of the by-laws governing membership on the board be brought about and that the number of trustees, which is now thirty, be radically reduced. The present board should probably elect members to fill vacancies as they occur. An attempt should be made to interest outstanding business men and women and cause them to accept election to this body. If this arrangement cannot be brought about, then the organization of a hospital association by which members of the board will be annually elected might be effected. It has been intimated that there is danger in such an arrangement and yet it has often been found to work successfully.

WHO SHOULD SUPERVISE THE ADMINISTRATION OF ANESTHETICS?

It goes without saying that a modern institution should possess a department of anesthesia. Moreover, the physician heading this department usually not only supervises the actual administration of ether but also instructs interns in the technique of the giving of ether, chloroform and nitrous oxide. Often this physician is a junior or associate staff member who, while not actually present during every anesthesia, is nevertheless responsible for the procedure.

Ether is usually administered by a nurse anesthetist assisted by interns. No serious difficulty is encountered in the conduct of the anesthesia department as far as the operating room itself is concerned. The supervision of the administration of ether and nitrous oxide throughout the hospital is a much more complicated problem. When a brief anesthesia is desired in a surgical dressing room often no one is available to administer the anesthetic. Moreover, it is questionable whether interns should be allowed to give a general anesthetic when unsupervised. Frequently, a short anesthesia is required in the out-patient department.

No general anesthetic should be given in any department of the hospital without a signed per-

mission. This rule has been found of the greatest importance in instances in which an unexpected accident has occurred and in which the right of the hospital to undertake the responsibility of giving an anesthetic or of performing an operation has been questioned. A wise procedure is for the anesthesia department to be held responsible for the supervision of the giving of all anesthetics, irrespective of where they are given in the hospital. Whenever it is known far enough in advance that ether is to be administered, the department of anesthesia should be informed and the services of an anesthetist requested. It is sometimes possible to schedule such a minor operation a sufficient time in advance so that no delay need result because of the absence of an anesthetist.

The director of anesthesia usually gives the medical officer in charge of the hospital the names of the interns whom he considers competent to administer the various anesthetic agents. From this information, a night and holiday schedule can be made out, the regular anesthetist, if there is only one, alternating with properly trained interns. Of course, interns may be permitted to administer ether in the presence of their chief or of his assistant at which time, of course, the visiting surgeon makes himself responsible for the safety of the patient. Interns should not be permitted to administer gas or chloroform in the accident ward without having taken the precautions suggested above or without the presence of a graduate physician.

As a general administrative rule, the proper supervision of all hospital anesthetics is impossible without a well organized, efficiently functioning department of anesthesia. To allow interns generally to administer such dangerous agents as ether, chloroform, nitrous oxide, ethyl chloride and ethylene is to court a disaster that will certainly occur.

SHOULD SPECIALISM WITHIN DEPARTMENTS BE PRACTICED AND ENFORCED?

Many hospital superintendents have experienced almost unsurmountable difficulties in bringing about the departmentalization of institutions under their charge. The difficulties encountered in bringing about this division of services, however, are usually not of the same proportion as those experienced when specialism within a department is attempted. It is undeniable that the general surgeon becomes antagonistic when it is suggested that certain types of patients who were formerly referred to him should be assigned to another of the surgical specialists. For example,

should it be possible for the general surgeon to perform prostatectomies when a genito-urinary surgeon is already on the hospital staff roster? Under what circumstances should ward patients requiring gynecologic treatment be referred to the staff gynecologist or should it be possible for the general surgeon to perform this type of work?

The Surgeon's Viewpoint

It is contended by the general surgeon that, because of the development of the specialties, there is little work left for him to do. To be sure, he is still permitted to perform appendectomies, to repair hernias, to operate for certain gastrointestinal ailments and to do thoracotomies and amputations. Nevertheless, he usually resents the presence of the gynecologist, proctologist and even the orthopedic surgeon. He frequently is able to present convincing arguments as to why he should be allowed to perform any type of surgery that is referred specifically to him by extra staff physicians or by other of his colleagues within the institution. He contends that if a physician requests him to remove a prostate from a specific ward patient who is referred to him from without his practice he should be allowed to do so. He resents any implication that the gynecologist should be allowed to treat patients who come to him from his clientele but who are unable to afford a semi-private or private status in the hospital.

Unless, however, definite rules are enacted which set down the types of cases that are to be referred to the various surgical specialties and unless these regulations are enforced, surgical chaos is certain to result. Unfortunately, the general surgeon believes or pretends to believe that he is able to perform all types of special surgery with the same skill as can be exhibited by the physician who is doing only this kind of work. The facts usually do not bear out this contention.

A sort of professional pride, or perhaps it should be called jealousy, prompts him to resent a rule which requires that he turn over to another staff member a patient who has been referred directly to him, even though it is a ward patient. Seasoned administrators, however, are almost unanimous in the belief that in medium and large sized institutions, at least, ward patients should be sharply departmentalized and that to staff specialists should be referred all cases not rightfully coming under the supervision of the general surgeon. A modicum of firmness, mixed with a little tact, will usually bring about the desired result. If this is not effective, a strict enforcement of the rules must be practiced and the surgeon must be made to understand that he must comply with them in every detail.

HOW SHOULD THE HOSPITAL BARBER BE PAID?

In some instances the hospital apparently does not feel that it is responsible for furnishing tonsorial service to the patient. An arrangement is usually made whereby a barber from a near-by shop is permitted to practice his trade within the hospital. Often the institution does not regulate the price that the barber may charge. These tradesmen are usually glad to secure the privilege of working in the hospital, but the superintendent should not permit them to practice there without some understanding as to the fees to be charged. Frequently the barber will charge a dollar to shave a private patient, while he exacts a fifty-cent fee from a ward patient. In some instances, these men have been known to take advantage of the lack of competition in the hospital and to have been exorbitant in their rates. Occasionally, in the case of ward patients, the fee charged is out of proportion to the patient's ability to pay.

To many patients, it is a great accommodation for the services of a barber to be provided. Some hospitals require the barbers to serve ward patients free of charge, if they are unable to pay, in return for the privilege of securing the patronage of private and semiprivate patients. Some set a scale of prices for ward, semiprivate and private patients.

The hospital should protect its clientele against exploitation by a visiting barber. In large institutions sometimes a barber is placed on the pay roll and a modern and sanitary shop provided. In such instances, the hospital has actually made a profit. This arrangement has the advantage of creating a complete control of the situation by the superintendent and under proper circumstances is to be commended. Sometimes in addition to this type of service, manicuring and other so-called beauty parlor work are offered patients from the private department of the hospital.

But whatever arrangement is made, the institution should not run the risk of admitting a barber who will be inconsiderate of the financial status of its patients. Such an attitude cannot avoid bringing criticism upon the hospital, since the patient presupposes that this tradesman is there by the permission of the institution and that the charges which he makes are approved by it.

IS A MONTHLY SURVEY OF BILLS BY A BOARD COMMITTEE AN EFFICIENT PROCEDURE?

In many institutions, it is the practice, at least every thirty days, for a finance or auditing committee to visé the current bills. Such a policy usually represents an almost total waste of time on the

part of the board committee. Under the most favorable circumstances, nothing can be done but to compare totals with those of a previous month or with those of the same month in previous years. An inspection of monthly bills gives little information as to the necessity for paying a unit price or as to the need for the total amount of material or the number of articles purchased. Moreover, little, if any, information can be thus secured as to the quality of the goods bought.

Limitations of Such a Survey

Such a committee may make certain that the extensions and computations are accurate but beyond this little can be accomplished. It is a ludicrous spectacle to see well intentioned groups of busy men and women spreading out upon a table the bills for the current month and solemnly proclaiming that they are proper or improper. If the superintendent they have engaged is not capable of carrying out the purchasing policies as adopted by the board, if he cannot be trusted to certify as to the receipt of the goods and as to the necessity therefor as well as to the high quality of the materials received, a change should be made in the administrative head of the hospital.

The auditing of bills as to mathematical accuracy is one thing, while a comparison of the prices with the quality of goods is another. The purchase of one article might represent an economical transaction even though a greater price than was absolutely necessary was paid, while in the minds of a committee surveying but paper evidence the buying of shoddy goods might be considered as a laudatory act, when in reality it deserved censure for extravagance. Such a policy favors the likelihood of interference with the administrative prerogatives of the superintendent, in whose hands the purchase of all hospital supplies should be placed.

Responsibility Is the Superintendent's

It is an unsound administrative policy for the chairman of the house committee, the committee on supplies or any other of the specialty groups of the board of trustees to supervise the purchasing of the articles necessary in their respective departments. When such a policy is enforced, the superintendent is usually a figurehead and the hospital is losing not only financially but in morale as well. If monthly bills become excessive, the board of trustees may call for an accounting by the superintendent. Outside of a moral effect the viséing of bills by such a committee might have, little if anything can be thus accomplished. No self-respecting superintendent will allow the responsibility for purchasing in his institution to be taken out of his hands.

NURSING AND THE HOSPITAL

Conducted by M. HELENA McMILLAN, R.N.
Director, School of Nursing, Presbyterian Hospital, Chicago

What Is the Board's Relationship to the Nursing School?

By ADDA ELDREDGE, R.N.

Director, Bureau of Nursing Education, Wisconsin State Board of Health, Madison

WHAT is the relationship of the board of trustees to the school of nursing? The school of nursing of to-day has been produced by a process of evolution, beginning with the Bellevue School of Nursing, New York City, and the Illinois Training School for Nurses, Chicago, and now exemplified in such organizations as the Cook County School of Nursing, Chicago, with its board of representative citizens.

In my school days it seemed that the only relationship of the school of nursing with the board of trustees was one of excitement and effort. When a trustee or a member of his family came into the hospital as a patient, we strained every nerve to have him see us as we were not—perfect. In those days the superintendent of nurses seemed the only person responsible for the school. We, the students in general, thought the superintendent of the hospital hated the nurses and looked upon us only as a necessary evil. The applicants were many, the waiting list long. Later the school passed through another phase. Applicants were fewer and schools so numerous that the superintendent of nurses was responsible for getting students for her school, "an ability not to be despised," says Ada Belle McCleery, superintendent, Evanston Hospital, Evanston, Ill. An outcome of this serious shortage of students was the formation of the Central Council for Nursing Education, Chicago.

Can it be true that the success of many hospitals is due to the fact that the trustees do not interfere in hospital affairs? If this is the relationship of the trustee to the hospital it is surprising that the lack of relationship to the school of

nursing is not even more marked than it is. I once heard a hospital superintendent say in an open meeting that he did not "allow" his board of trustees to interfere, a statement that excited little comment. The Committee on the Grading of Nursing Schools emphasizes a lack of contact between the superintendent of nurses and the trustees. It is obvious also that some superintendents of nurses themselves do not always see the need for a close contact with the trustees.

Boards of trustees, all busy men or women, are not always conscious of any need for a closer relationship unless it is brought to their attention. Even to-day many trustees feel that the medical profession is the best judge of the needs of nursing schools, and there are medical men and nurses who seem to agree with them.

Generally speaking, the interest of the board of trustees in the hospital is one of interest in a charity. The board does not expect the efficiency in management that it would expect in a business concern and certainly not of any other public utility. Thus the school of nursing in some instances is considered from the economic and not the educational viewpoint. Seldom, indeed, is it organized to educate nurses as the medical school is organized to educate doctors; rather its function seems to be to care for the sick by performing the nursing duties of the hospital. Nursing education is considered a by-product.

Nurses themselves have led the revolt against mere apprenticeship as a result of finding themselves so poorly equipped for efficient service.

The superintendent of the hospital frequently has had only a business training. Consequently,

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he expects to run the whole institution on business lines, school and all, measuring the latter in the terms of expense and of production.

To-day we have the anomalous situation of a hospital organized on business lines under a board of trustees establishing an educational institution and placing this educational institution, the school of nursing, under a business manager who probably has no particular educational outlook or experience. In many instances he must select and employ the educational head of the school and plan the budget for the school. This budget is always the first to be cut, if it may be said that the school's expenses are budgeted.

The superintendent of nurses fills the dual position of head of a department of the hospital caring for the sick and of educational director of the school of nursing.

If the line of organization is only through the superintendent of the hospital, she has the same standing as the steward, the housekeeper, and the engineer. To go a little further, it might be asked, Who is the head of the school, the superintendent of nurses or the superintendent of the hospital? She is undoubtedly responsible to him for the care of the patients, for the work of her nursing staff, for the use of supplies, for the expenses of the school and for all those many things that are necessary in the running of a hospital. Is he also to be the last word in regard to the school? Is she to be left without opportunity to reach the board of trustees unless she goes over his head with no right to appeal to the board without a seeming discourtesy to him?

Better Organization a Need

The board of trustees, as I have said, is primarily interested in caring for the sick, either as the business of the community or as a charity, with the superintendent of the hospital carrying the financial responsibility as well as the responsibility for the efficient running of the institution. The superintendent of nurses is responsible not only for the nursing of the patients but for the satisfying of the doctors' demands. She is constantly confronted with the necessity of providing a sufficient number of nurses to care for the patients. Is it any wonder, therefore, that she sometimes loses sight of the school? In view of these facts, it is easy to see why trustees, the superintendents and even the nurses in small hospitals have a tendency to start unneeded schools with a hope of saving money.

As standards of medical schools have advanced, many of what were once the doctors' duties have devolved upon the nurse. Thus there has come to the members of the nursing profession engaged in

educational work, the profound conviction that better organization and more teaching faculty are necessary. Better methods of education must be found. The head nurse cannot be responsible for ward administration and ward teaching at one and the same time. The use of students for many duties in the hospital is wasteful of their time and is not to the best interests of the patient. Nor is it likely to supply the best prepared women to meet the public's need.

A School of Nursing Committee

The importance of all this to the board of trustees and the need for a board in sympathy with the well-being and growth of the school have led to many efforts for a better and a closer relationship. Perhaps the most successful attempt in this direction has been through a school of nursing committee with representation from the trustees and the medical board, and with at least one member from the field of general education. On such a committee both the superintendent of the hospital and the superintendent of nurses have a place. This committee has done much to improve the position of the superintendent of nurses and to give her the support she needs.

To list a few of the cases in which the committee serves may be of value. In the first place it is a committee appointed by the trustees and should be given certain authority, although it should in no way usurp the powers of the board of trustees or relieve them of responsibility. If a new superintendent of nurses is needed, this committee finds and engages the properly qualified woman or recommends her to the trustees. The committee knows the plans that have been made for the school. It knows wherein the last superintendent has succeeded and wherein she has failed. It can help the new superintendent to profit by the mistakes of her predecessor. To this committee the superintendent of nurses presents her plans and her budget, and she asks the members for advice regarding the credentials of applicants for positions and for advice and approval as to her selections. To them are brought her suggestions for improvements, new affiliations, recommendations for salary increases and for the dismissal and admission of students. If advice is needed in difficult situations she goes to the committee.

Thus the time of the board of trustees is conserved. Reports are approved and recommendations endorsed before they go to the trustees. The committee sees that the superintendent of nurses presents her report in person and has a chance to answer criticisms and questions. By this method the board learns to understand that she is a co-worker of the superintendent of the hospital,

working with him, not under him and responsible to him for the care of patients but to them for her school.

The question is: Do boards of trustees in their relation to schools of nursing recognize their responsibility? Are they prepared to make the decision as to whether or not they should continue to run schools of nursing without an independent knowledge of what this entails?

Eliminating the High Turnover

The grading committee report calls attention to the contact or lack of contact between superintendents of nurses and boards of trustees under the following heading: What are their relationships with their boards of trustees? The report states that only 18 per cent of the superintendents have a nursing committee to whom they are directly responsible, and that most superintendents are responsible to the board of trustees, either directly or indirectly; that the typical superintendent of nurses, when she does not occupy both positions, attends only three out of a possible twelve meetings of the executive board. The committee goes on to say, "Since the nursing service is so intimately connected with almost every phase of hospital administration, it is difficult to conceive of the board of trustees holding any regular meeting without discussing nursing in some form. One wonders whether the extremely high turnover in superintendents of nurses might not be somewhat reduced if the presence of the superintendent herself were encouraged at board meetings. Such dissatisfaction as results in 51 per cent of the superintendents of nurses leaving their jobs before the end of the second year would seem to indicate that there must be some lack of team play between the members of the board and the superintendent of nurses that might perhaps be remedied if the point of view of each were automatically presented to the other through direct and frequent informal discussion."

One of the most valuable papers ever written on the relations of the hospital superintendent, the superintendent of nurses and the trustees is by Ada Belle McCleery, herself a hospital superintendent and a former superintendent of nurses. She gives an outline of the work of both hospital superintendent and superintendent of nurses and makes this statement: "Probably the greatest handicap of all is the lack of contact with the board of directors. There are active board members who do not realize just the position the superintendent of nurses occupies. They will sometimes say frankly: 'I have not met her,' or 'I have seen her once or twice,' or 'I think she is all right, she seems to be getting along.' They have no sense

of responsibility for the school. I wish it were possible to make every member of a board of directors of a hospital realize that he is also a member of a school board. How long would any member of a board of our public schools remain a member if he took as little interest in school affairs as some take in our schools of nursing? Do we ever find that the members of the board of directors of a college do not know the name of the college president, or that the principal of the township high school has no contact with the school board? The situation is no different."

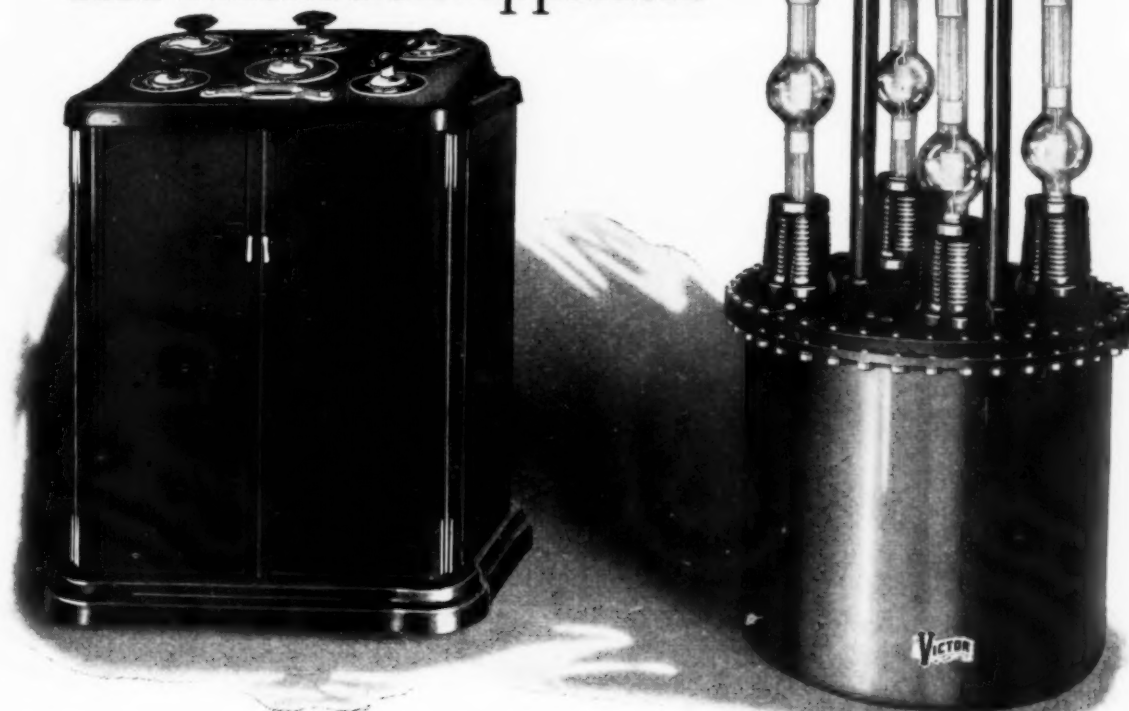
She then enumerates some of the responsibilities of the superintendent of nurses, and continues: "If I may be pardoned for being personal, I would like to tell you that at the hospital that I have the honor to represent, for nearly three years the hospital superintendent and the superintendent of nurses have sat with the hospital board in executive session. The result is that the board is beginning to be interested in nursing problems and has made it possible for us to establish reforms that were badly needed. On the other hand, the superintendent of nurses now has a better understanding of hospital problems, which has not only resulted in greater economy, but which has also developed a spirit of cooperation. I know of no time when advantage has been taken by the superintendent of nurses of the privilege that has been given her. She has never made the mistake of presenting matters that might mean a change of policy without first discussing the matter with the hospital superintendent and the training school committee. On the other hand, she is not prohibited from presenting any matter she may desire to the training school committee. The hospital superintendent sits on this committee also. As this committee can act only in an advisory capacity and has no power to vote funds, it is important that the superintendent of nurses present her own problems, with the endorsement of the committee, to the board."

Critical Times

These times are critical in nursing as in all lines of work and education. Unemployment in the nursing field has resulted from too many schools as well as from hard times; too much poor material has been retained in our hospitals, and one big field, private duty, is unsupervised to the point that, according to the grading committee, "anyone who wants to call herself a nurse may enter the private duty field in competition with all others in it, the competent and the poorly trained." These conditions add yearly to the number that the profession is obliged to carry upon its shoulders and for which the boards of trustees are responsible to the profession itself.

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ABOUT ten years ago Dr. W. D. Coolidge, in the Research Laboratories of the General Electric Company, made radiographs with 1000 ma. of tube current. Roentgenologists who viewed these radiographs recognized immediately the vastly increased diagnostic value with this high milliamperage, as it permitted high speed radiography at comparatively low voltages—speed sufficient to arrest involuntary motion of the heart, lungs, stomach, etc.

At a subsequent x-ray meeting in Chicago this series of 1000 ma. radiographs was exhibited by Dr. Coolidge, and the interest manifested proved conclusively that roentgenologists awaited the day when equipment of this capacity would become available for certain classes of work.

But it is a long step, sometimes, between an experimental set-up in the research laboratory and the apparatus eventually developed for practical use. In the years intervening a vast amount of further research and experimental engineering has entered into these two developments, which until now could not be announced. Obviously the handling of this large amount of energy demands apparatus of utmost precision and automatically true in performance in order that it be thoroughly practicable in the hands of the average operator.

When it may be said that with this Victor equip-

ment one can obtain radiographs in 1/120th second, with as high as 1000 ma. tube current, realizing a diagnostic quality unprecedented in the x-ray art, and with greater simplicity and more consistent duplication than has been possible with the so-called high milliamperage technics up to the present—then can one appreciate what research in physics and engineering has again contributed to medical science.

The apparatus proper employs four Kenotron Valve Tube Rectifiers known as the KR-3 type, the first of the Kenotron series to prove acceptable to Victor engineers as sufficient for the requirements of modern x-ray equipment. An ingenious control (magnetic) system coupled with this Kenotron, together with a transformer of extraordinary efficiency, have made possible the positive, unfailing performance mentioned in the preceding paragraph.

This equipment is now in production and installations are being scheduled in the sequence of orders placed. Further particulars will be gladly given.

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As yet the studies of cost of running schools of nursing are of little value in determining the items to be included. And various types of services differ too much in value to offer a true basis for comparison. Little has been brought out to show the comparison of the costs in a hospital staffed by student nurses and those of a hospital staffed by graduates, although individuals have presented illuminating figures as to the cost in their particular institutions. No real comparison, however, has as yet been evolved.

What should be the part played by the boards of trustees in the development of nursing schools? Are conditions entirely satisfactory? Can the boards of trustees tell us why they are not satisfactory?

The study of medical education reduced the number of medical schools but the medical schools were not using the interns to do the work of the hospitals. The study of nursing schools made by the grading committee should eliminate many, but who is to decide which schools are to be eliminated and on what basis? It is quite customary to hold nurses responsible for nursing education and to hold them responsible for the high cost of illness, although the Committee on the Cost of Medical Care has changed its name to the Committee on the Costs of Medical Care because there were so many costs, not all traceable to either doctors or nurses. In the last analysis, is it not time for us to admit that the boards of trustees are responsible and is it not time for them to admit the responsibility and join hands with nurses, as the Central Council for Nursing Education is doing, in efforts to meet the situation that is the direct result of obsolete hospital methods? Less unemployment among nurses will result from better control of the intake and the output of the nursing schools. This will help to clarify the atmosphere and make the boards of directors as well as the public conscious of their responsibility.

Educating the Board

The council is endeavoring to educate boards of trustees. The importance of a sympathetic understanding with real knowledge from the board of trustees came first to the public health field. Slowly but surely it is coming to trustees of hospitals, especially to trustees of those hospitals that are conducting schools of nursing. The board of trustees should understand the needs of giving adequate training to all nurses in such branches as communicable diseases, tuberculosis and psychiatry. There is great truth in the following statement: "A nurse thoroughly trained in mental health work in all its branches has one of the greatest opportunities for service that can be given

to anyone. The day is not far distant when she will become a teacher of mental health in the community. The lack of mental training is a real neglect in the nurse's education and shows a want of appreciation of the needs of the patient and of the nurse herself, as well as of the trend of the ideals for which she is working." Yet, in the majority of schools the superintendent of nurses has difficulty in giving these very necessary affiliations to her students.

Placing the Blame

The two studies made of nursing, the first in 1925 by a committee and the study often spoken of as the Rockefeller Report, and the study that is now in progress, the five-year study of the Committee on the Grading of Nursing Schools, have brought certain important facts to light, facts that had been brushed aside as the unwarranted opinions of an interested group when they had been presented by members of the nursing profession. Studies that are now being made in certain institutions show the impossibility of staffing hospitals entirely with students.

What I am about to say may seem to be far-fetched, but I honestly believe that the responsibility for the overproduction of nurses, for poorly prepared nurses and for nurses who are misfits is in the last analysis the result of a lack of understanding of their responsibilities by trustees.

A separate budget is needed for the hospital and for the school of nursing. The trustee should know there is seldom a budget, but rather a subtraction of expenses from receipts with the board meeting the deficit if there is one. This is a problem for the trustees.

Another problem for them to consider is this: Is the school of nursing a department of the hospital or does a division exist between the nursing department of the hospital and the school? Does the board of trustees see this division? Does the hospital superintendent see it? We can safely say that as a rule neither sees it. Of course there are a few notable exceptions. The four endowed schools, Yale, Western Reserve, Vanderbilt and Cook County, have independence. This should be true of every school. But it is not, as can plainly be seen by the method of engaging a superintendent of nurses which is usually as follows:

A board of trustees engages the hospital superintendent or business manager and leaves him to run the institution. His duties are "to hire and fire," as I was recently told by a hospital and school of nursing board. The trustees, however, will have to solve the following problems with regard to the hospital and the school:

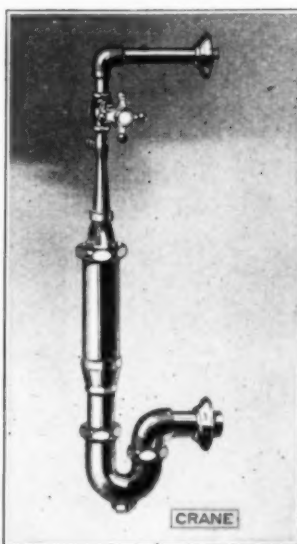
1. Is it their problem to educate nurses? If so,

The simplest method of draining wounds + *and the most positive* +

Surgery is now facing a new set of problems. Diagnostic and operative technics have reached an advanced state of development. It only remains for therapeutic equipment to reach an equally high state before surgery's service will be balanced.

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Using an ejector principle, this *Aspirator* operates on water. It functions on a minimum of 10 pounds water pressure, creating 5 inches of vacuum; with 65 pounds water pressure it is possible



C 7563 *Aspirator*

to create 29 inches of vacuum.

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Important from the Hospital Manager's point of view is the fact that the initial price of this *Aspirator* is lower than that of other types; so are its installation and maintenance costs. Get the complete details concerning this important contribution to surgical technic from Crane Co., or from any Crane branch.

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they must plan and raise the funds for the school. If not, they must provide funds for the use of graduate nurses and arrange a budget for the purpose.

2. They must see that the nursing service of every hospital in which students are being educated is stabilized with a sufficient number of graduates so that the patients are not neglected for the students' education or the students' education neglected for the patients' care. Endowments should be obtained for all schools of nursing.

3. They must place the superintendent of nurses on a proper relation to the board and recognize her as a co-worker of the superintendent of the hospital, responsible through him and to him for the care of the patients and the efficient running of the nursing service of the hospital, but responsible directly to the board for the efficient conduct of the school of nursing.

4. They must know and be interested in her plans for the school as well as in those of the superintendent for the hospital.

5. They must see that she has a faculty and staff large enough to enable her to do efficient work.

6. They must regard her budget as important and worthy of careful planning.

7. They should require her reports to be given in person and should consider them with the same attention that they give to the hospital reports.

8. They must see that students have a well rounded education. This may have to be done through affiliation.

Only in institutions in which the boards of trustees can and will meet these obligations and maintain these relations, is it sound to establish or maintain schools of nursing.¹

The Best Disinfectants—Soap, Hot Water, Fresh Air, Sunshine

Sunshine, fresh air, hot water and soap, liberally and conscientiously applied, are recommended by the Maryland State Department of Health, for the cleansing of rooms and of articles that have been used by a person who has been ill from an infectious disease.

"Two kinds of disinfection—concurrent, while the disease is running its course, and terminal, at the end of the siege—must be carried on," Dr. R. H. Riley, director of the state department of health, said, "to prevent spread of infections."

As instances of "concurrent" disinfection, he said: "The person who takes care of a patient

who is ill with typhoid fever or with any similar disease, is warned by the family doctor or the health officer, that the discharges from the kidneys and the bowels are a source of danger and must be disinfected or sterilized before they are disposed of.

"For the same reason, the person who has a cold, or is suffering from influenza, grippe, sore throat, diphtheria, pneumonia, tuberculosis, scarlet fever, measles, whooping cough, infantile paralysis, or any other disease that is accompanied by discharges from the nose and throat, is warned that these discharges are sources of danger, and is urged to use paper handkerchiefs, or cheese cloth, or some other soft material that can be destroyed by burning, or can be disinfected or sterilized by boiling.

"Terminal disinfection, as its name indicates, is the general cleansing and sterilization of the room, bedding and personal belongings of the patient, at the end of the illness, after the patient is up and out or is released from quarantine. There was a time not so long ago, when it was felt that the best way to disinfect a room was to close all the doors and windows, stop up all the cracks and burn some sort of disinfectant. Now we believe that even better results can be obtained by the use of the things that are within the reach of everybody—soap and hot water, sunshine and fresh air—by opening up the rooms to the air and sunshine; and by a vigorous cleansing of the floors and all other washable objects with soap and hot water."

Book for Nurses Is Written by Eminent Psychologist

"Psychology for Nurses" is the name of an interesting book by Dr. Fred A. Moss, professor of neurology and psychiatry, George Washington University Medical School, Washington, D. C., recently published by Houghton, Mifflin Company, Boston.

Doctor Moss' book is based on material he has used in lectures on the psychology of nursing which he has given at the Central Training School for Nurses, Washington, D. C., during the last seven years. It is well written and extremely readable.

The book is divided into two parts: "Psychology and Its Place in Nursing," and "Individual Differences."

Not only is it valuable as a textbook in nurse training classes but it is the type of book that should have a place on the graduate nurse's bookshelf.

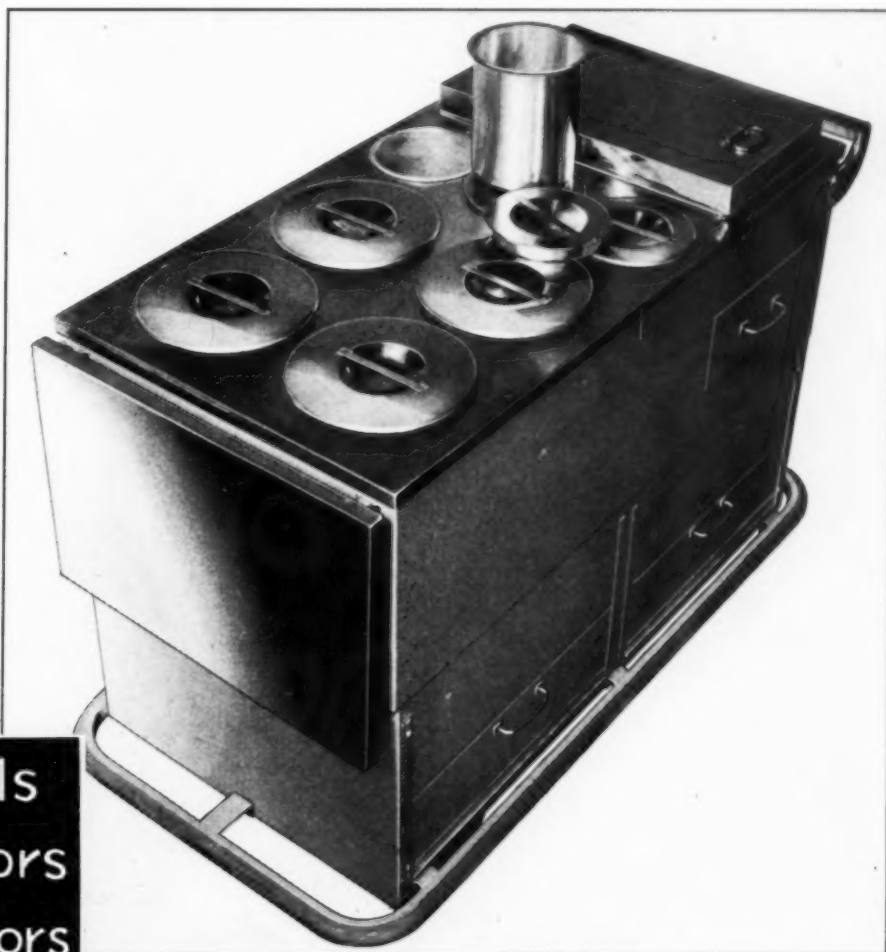
¹Address given before the Central Council for Nursing Education, Chicago.

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NEWS OF THE MONTH

Challenging Issues Upmost at C. H. A. Convention

THE sixteenth annual convention of the Catholic Hospital Association of the United States and Canada was held at the College of St. Thomas, St. Paul, Minn., June 16 to 19. The International Catholic Federation of Nurses also met in St. Paul at this time.

The convention opened with a solemn high mass in the chapel of the college. The program was divided into six main topics: religious problems; medical social service; nursing education; adequacy of hospital service; hospital economics; nursing service. The general topic that recurred throughout the entire program was "To-day's Challenging Issues in the Catholic Hospital."

The plan of holding general meetings in the morning and sectional meetings in the afternoon, so successful last year, was followed again.

In the general session on the morning of June 17 the spiritual aspect of hospital work was discussed. It was at this meeting that the report of the committee on the adequacy of vocations was read and discussed. Papers were presented on the Catholic spirit in the hospital, on the statistics of religious orders conducting hospitals in the United States and Canada and on the work of the Catholic medical missions.

Medical Social Service Discussed

The general session on the morning of June 18 was devoted to the presentation of papers on medical social service. The general problem was outlined by Edith Baker, president, American Association of Hospital Social Workers, and various phases were taken up by Ida M. Cannon, chief of social service, Massachusetts General Hospital, Boston, Dr. Goronwy O. Broun, and Sister Marcella, St. Catherine's Hospital, Omaha, Neb.

The meeting of the morning of June 19 was devoted to the problem of nursing education. The committee on the nursing education study presented its report and its recommendations. At the end of this meeting the concluding business of the convention was transacted.

The afternoon session of June 16 was concerned with the problems of the adequacy of hospital service; that of June 17, with the problems of hospital economics and that of June 18, with the problems pertaining to nursing service.

The adequacy of hospital service was discussed under three headings in sectional meetings. These

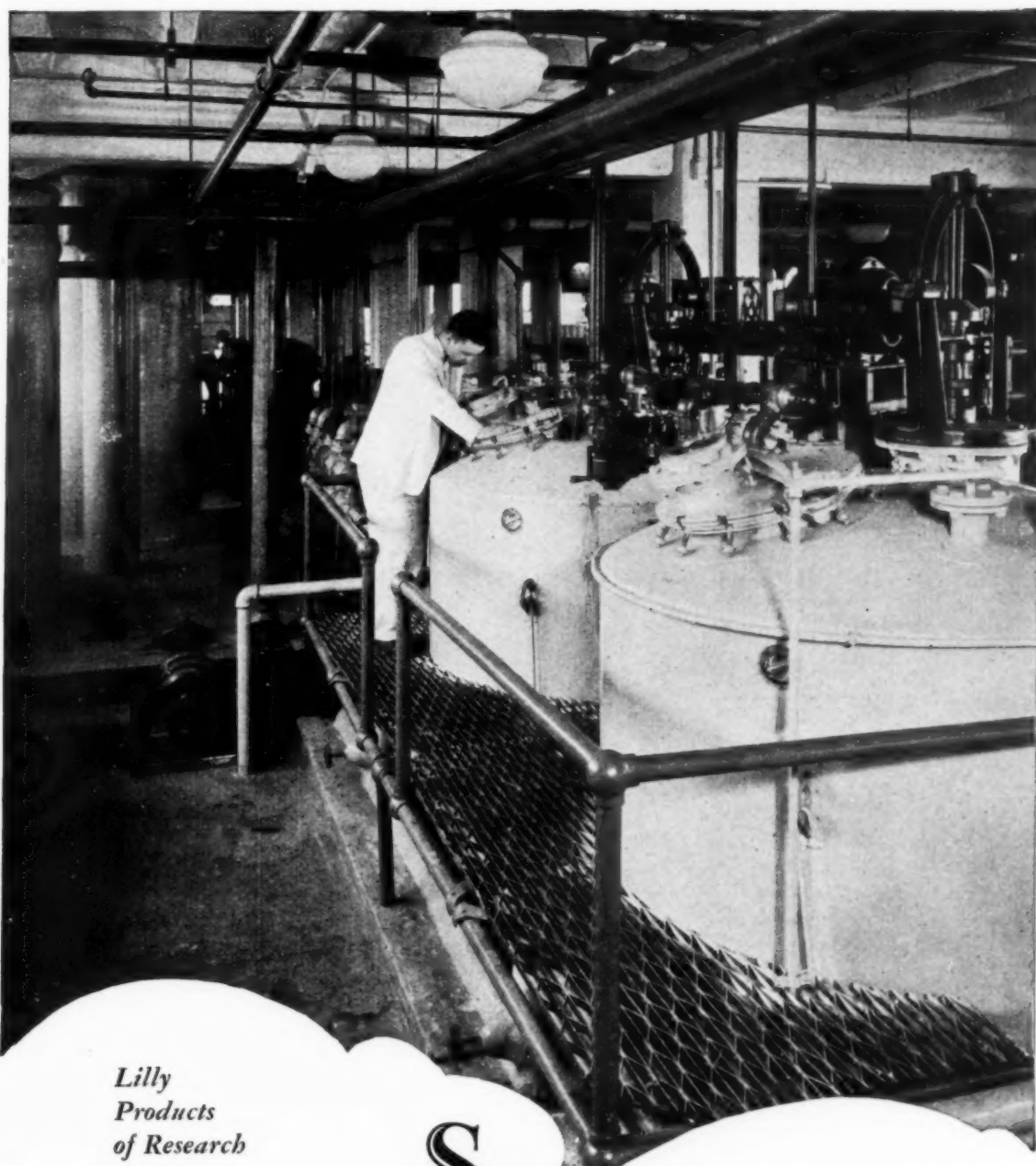


The Rev. Alphonse M. Schwitalla, S.J., who was reelected president of the association.

included: adequacy of medical record services; adequacy of diagnostic procedure; adequacy of hospital administration.

Hospital economics was discussed under the subheadings of present conditions: occupancy and cost and personnel element in hospital service.

Nursing service was discussed in the following



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NEWS OF THE MONTH (Cont'd)

three phases: the nurse and the hospital; teaching method in the development of the nurse; out-patient service.

The Rev. Alphonse M. Schwitalla, S.J., president of the association, presided at the opening meeting, delivering the presidential address at this time. Father Schwitalla in collaboration with M. R. Kneifl, secretary of the association, also presented a paper on "Religious Orders Working in the Hospital Field," at the program of Wednesday morning, June 17.

The exhibits were on view in the Armory Building of St. Thomas College. The entire area that was set aside for the exhibitors was rented and proved to be of educational as well as professional interest for those in attendance.

All of the officers of the association were unanimously reelected.

Miss O'Roke Heads Kentucky Association

Agnes O'Roke, superintendent, Kosair Crippled Children Hospital, Louisville, is the newly elected president of the Kentucky Hospital Association.

Other officers are: first vice-president, Dr. J. Ernest Fox, superintendent, Central State Hospital, Lakeland; second vice-president, Lake Johnson, superintendent, Good Samaritan Hospital, Lexington; executive secretary, Madge Hamnette, superintendent, Children's Free Hospital, Louisville; trustees, Dr. John Wathen, St. Anthony's Hospital, and Alice Gags, superintendent, Norton Memorial Hospital, both of Louisville.

South Dakota Registers 133 at Its Annual Meeting

Officers who will guide the destinies of the South Dakota Hospital Association for the coming year were elected at the annual meeting of the association in Madison, June 9 and 10, as follows: president, J. S. Harkness, financial secretary, Methodist State Hospital, Mitchell; vice-president, Mary A. Schmidt, superintendent, Chamberlain Hospital and Sanitarium, Chamberlain; secretary and treasurer, C. W. Carlson, business manager, Moe Hospital, Sioux Falls. The 1932 meeting will be held in Mitchell.

Discussion at the meeting this year centered around the workmen's compensation act and insurance, insofar as it affects the hospital in automobile accident cases.

The meeting was well attended, there being an attendance of 133 at the banquet. Paul Fesler, president-elect, American Hospital Association, was a guest at the meeting.

Illinois Occupational Therapists Meet in Chicago

The Illinois Society of Occupational Therapists met at the Billings Memorial Hospital, Chicago, June 19, as the guests of the occupational therapy departments of the Billings Hospital and the Home for Destitute Crippled Children, Chicago.

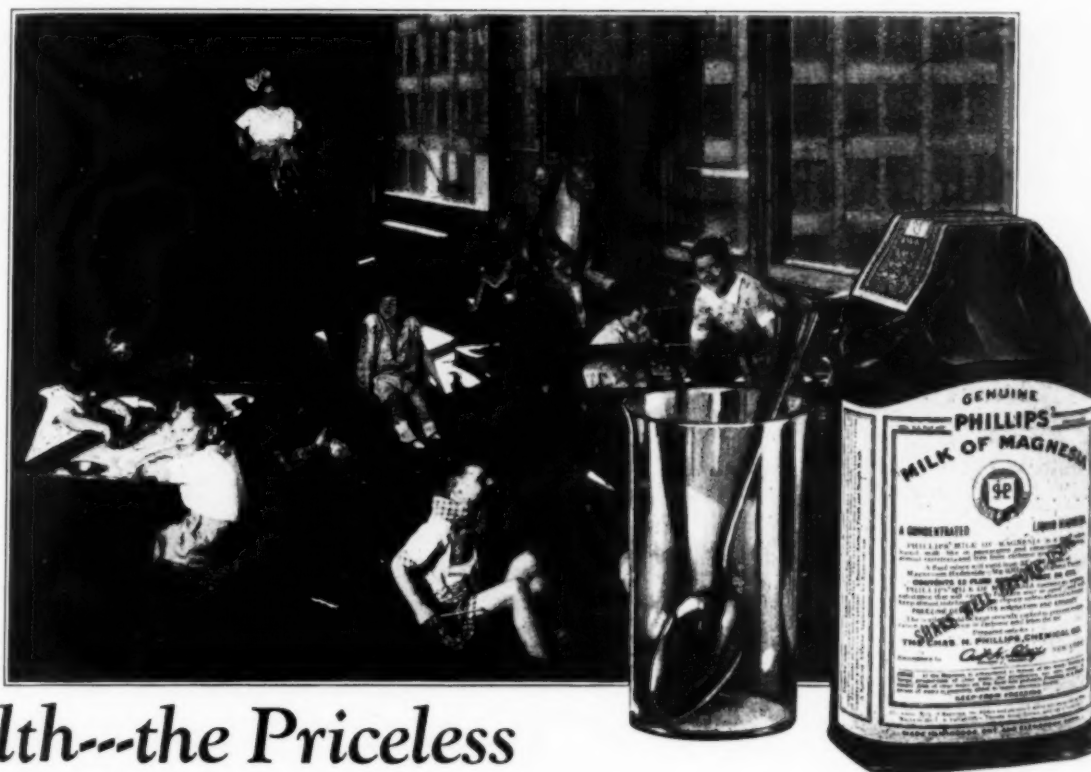
The program consisted of a tour of the Billings Hospital and an address by John Dinsmore, superintendent, University of Chicago Clinics.

Elizabeth Wisner New President of Hospital Social Workers

Elizabeth Wisner, assistant professor of sociology, Tulane University, New Orleans, was elected president of the American Association of Hospital Social Workers at its annual meeting in Minneapolis, during the week of June 14.

Other officers elected include: first vice-president, Ruth Wadman, assistant director of war service, American Red Cross, Washington, D. C.; second vice-president, Janet Thornton, director, social service department, Presbyterian Hospital, New York City; third vice-president, Elizabeth P. Rice, head of social work, Boston Dispensary, Boston; secretary, Ruth E. Lewis, associate director, social service department, Washington University Clinics and Allied Hospitals, St. Louis; treasurer, Elizabeth McConnell, executive director, Mandel Clinic, Michael Reese Hospital, Chicago.

Elected to the executive committee were: Edith M. Baker, director, social service department, Washington University Clinics and Allied Hospitals, St. Louis, and Lena R. Water, director, social service department, Hospital of the University of Pennsylvania, Philadelphia.



Health--the Priceless Asset

RESTORING the sick to health, while originally the only function of the hospital, is more and more being supplemented by the service of keeping well people well, and all over the country hospitals are taking active leadership in health educational work. Particularly among children the ideals of healthful living and right habits are meeting with excellent results.

Quite properly the service of any hospital includes educational work with resident patients, out-patients, and through its community contacts—educational work among both children and adults to

the end of preventing those abuses of right living which lead to ill balanced metabolism. This condition too frequently shows itself through a diminished alkalinity of the blood and tissues due to an excess of acid products—acidosis.

Gastric hyperacidity, acidity of the mouth and other of the more obvious manifestations of acidosis are promptly counteracted by "Phillips' Milk of Magnesia" which has a pronounced affinity for acids, the harmless resultant compounds being readily excreted. Further, it has the additional merit of being laxative, a quality of importance here since constipation is so frequently the underlying cause of hyperacidity.

Hospitals at all times are assured a uniformity of quality and efficacy by avoiding imitations. "Phillips' Milk of Magnesia" bears our registered trade mark. Insist upon it by name. Obtainable in 4-ounce (25c bottles), 12-ounce (50c bottles), and 3-pint hospital size from druggists and supply houses everywhere.

PHILLIPS'

Milk of Magnesia

"Milk of Magnesia" has been the U. S. Registered Trade Mark of The Charles H. Phillips Chemical Co. and its predecessor Charles H. Phillips since 1875.

THE CHAS. H. PHILLIPS CHEMICAL CO. NEW YORK

NEWS OF THE MONTH (Cont'd)

Health and Hospital Conditions in Kansas City Are Surveyed

A survey of health and hospital conditions in Kansas City, Mo., has recently been published under the auspices of the Chamber of Commerce of Kansas City. The study was made in cooperation with the Kansas City Public Service Institute and seventeen subcommittees of the Public Health and Welfare Committee.

The report is made in three major divisions: the public health service of the voluntary and tax supported agencies; community aspects of hospital facilities; the administration of the City Hospital group.

The survey is a volume of 329 pages, attractively printed on a good grade of paper and containing twenty-four charts and ninety-five tables.

The survey was started in May, 1930. It was completed and presented to the Public Health and Welfare Committee—Dr. George E. Bellows, chairman—in February, 1931, by Dr. W. F. Walker, field director and executive secretary on administrative practices, American Public Health Association.

Practical Subjects Discussed at Florida Meeting

Dr. W. L. Shackelford, superintendent, Good Samaritan Hospital, West Palm Beach, was named president-elect of the Florida Hospital Association at its meeting in Orlando, May 13. J. H. Holcombe, superintendent, St. Luke's Hospital, Jacksonville, will serve as president during the coming year. Fred M. Walker, general superintendent, Duval County Hospital, Jacksonville, is the executive secretary of the organization.

The regular educational session, which was held at the Orlando-Florida Sanitarium, in the afternoon, was devoted largely to the reading and discussion of three papers. Dr. I. M. Hay, Melbourne Hospital, Melbourne, Fla., discussed the progress that had been made in the standardization of hospitals and recounted the advantages of subscribing to a standardization program.

Dr. L. Sydnor Lafitte, member of the medical staff, Alachua County Hospital, Gainesville, spoke on the distribution of hospital beds. He referred

to the concentration of hospital beds in centers of population and to the absence of hospital facilities in many remote rural districts.

"Modern Methods in Training Nurses" was the subject of a paper presented by E. Bernice Hammond, superintendent of nurses, Orange General Hospital, Orlando, in which was traced the development of training schools for nurses.

Dinner was served to all members at the Orlando-Florida Sanitarium. Dr. L. L. Andrews, medical superintendent of the institution, related the history of his organization and described the classes of patients that are regularly admitted and treated.

At the evening session, Doctor Shackelford conducted a round table discussion of the problems of the training schools of small hospitals in meeting the advancing standards of the National League of Nursing Education. The opinion was expressed by many members that training schools represented no economy in the operation of hospitals as compared with the use of a service employing only graduate nurses.

In this connection, the president, J. A. Bowman, Munroe Memorial Hospital, Ocala, reported a survey of the allowances to student nurses that are paid by the several training schools of the state. This disclosed wide variations and prompted a discussion of the advantages of discontinuing all monetary payments to student nurses and investing a corresponding sum of money in a broader educational program.

Chicago Dietitians Entertained at Evanston Hospital

Members of the Chicago Dietetic Association were guests of Louise Y. Gilbert and her staff of dietitians at the Evanston Hospital, Evanston, Ill., May 20. The meeting was held at Patten Memorial Hall, the new nurses' home of that hospital. Dr. James G. Carr, department of medicine, Evanston Hospital, and professor of medicine, Northwestern University Medical School, gave an excellent talk on "Diet in Nephritis." Following his speech the members were conducted through the Patten Memorial Hall and the hospital kitchens, after which refreshments were served and a social time enjoyed in the spacious living room.



DRIVING BACK THE LAST FRONTIER OF BACTERIA

The modern surgeon would no more think of working with unsterilized instruments than he would think of operating in the dark. Sterilizers and antiseptic solutions prepare scalpels, instruments and dressings for their life-saving, health-restoring work. Yet not all hospitals realize that every open door or window admits countless danger-laden particles of dust. With air filtration, this last resort for bacteria is being banned from modern hospitals.

S T E R I L E A I R

is furnished Lakeside Hospital's operating rooms by American Air Filters

Nowhere is pure, clean air so important as in rooms where health is already below par; in rooms where active struggles are being waged against disease and death. But *fresh* air is not *pure* air until it has been thoroughly cleaned of dust, dirt and bacteria.

A striking illustration of this fact was afforded in a modern New York hospital, where sanitary cleanliness is strictly guarded. Twelve germs were counted on culture plates exposed to the air for five minutes. After agitating the air, more than 266 germs were counted. Similar dangers

are continually met in hospitals and laboratories whose windows and doors admit unfiltered air. Germs settle upon surgeons' gloves and instruments, even upon open wounds, just as they settled upon the culture plates in the New York hospital.

Lakeside Hospital of Cleveland, like many modern hospitals, has banned danger-laden air by installing American Air Filters in the operating rooms of the hospital, proper, and the operating room of the annex, Hanna House. A pure atmosphere is supplied for patients. Sterile instruments and materials are insured against air-borne contamination.

American Air Filters will provide the operating rooms of your hospital with the same protection against air-borne pollution and infections that Lakeside Hospital has secured. When installed throughout the building, they insure pure air for every room, and protect furnishings from dust and dirt. Write us, without obligation, for information that will show how American Air Filters insure greater protection against dust and bacteria; how they ban noise; how they improve health conditions and reduce upkeep costs. AMERICAN AIR FILTER CO., Incorporated, General Offices,

132 Central Avenue, Louisville, Kentucky. Factories, Louisville, Kentucky.

To right, filter unit that supplies clean air to operating room, Hanna House. Unit designed and built by American Air Filter Co., Inc.

At top, Lakeside Hospital, Cleveland, Ohio. Below, Hanna House, of Lakeside group. American Air Filters supply clean air to operating rooms of both buildings.



AMERICAN AIR FILTERS

NEWS OF THE MONTH (Cont'd)

Foundation Stone Is Laid for New Marshal Foch Hospital

The foundation stone of a new hospital at Suresnes, near Paris, France, in memory of Marshal Foch was laid by M. Camille Blaisot, minister of health, on the second anniversary of Marshal Foch's death.

The hospital, which is expected to be ready for occupancy in two years, is to be devoted largely to the service of patients who are neither wealthy enough to afford care in a private clinic or sanatorium nor poor enough to require charity. Preference will be given to members of the liberal professions of all nationalities. The regular hospital fee will not exceed \$2 a day, and the surgical operations will be performed at moderate rates.

The estimated cost of the hospital, fully equipped and complete with a training school for 150 medical students and a training school for nurses, is \$1,200,000. The French Government has guaranteed half this sum, provided the other half is subscribed by the general public. More than \$200,000 has already been raised.

Carolinas and Virginia Send 250 Delegates to Joint Meeting

Dr. Harold Glascock, Mary Elizabeth Bates Hospital, Raleigh, N. C.; F. O. Bates, Roper Hospital, Charleston, S. C., and Dr. Knowlton T. Redfield, Jefferson Hospital, Roanoke, Va., were elected presidents of the state hospital associations of North Carolina, South Carolina and Virginia, respectively, at the joint meeting of the associations at Durham, N. C., May 19 to 21. Secretaries of the three associations were elected as follows: E. G. Farmer, Carolina General Hospital, Wilson, N. C.; H. H. McGill, Columbia Hospital, Columbia, S. C.; M. H. Coleman, Jr., Johnson-Willis Hospital, Richmond, Va.

The registration from the three states was 250, the majority of the hospitals sending delegates to the meeting.

One of the main addresses of the convention was given at the opening dinner on the evening of May 19 by C. Rufus Rorem of the Committee on the Costs of Medical Care. Mr. Rorem spoke on "The Economics of Hospital Care."

Speakers on the second day's program included: Marion Crissman, Jefferson Hospital, Roanoke, Va., who spoke on "Nursing Education"; Dr. H. A. Royster, Rex Hospital, Raleigh, N. C., who discussed "The Staff's Interest in the Hospital"; Mrs. B. B. Holmes, Greenville City Hospital, Greenville, S. C., who spoke on "Hospital Housekeeping." An address that was keenly enjoyed was that presented by J. Moss Beeler, Spartanburg General Hospital, Spartanburg, S. C., on "Hospitals as a Health Center for the Community."

One session was entirely devoted to a discussion of workmen's compensation problems, the main speaker of which was Major Matt Allen, chairman, North Carolina Industrial Commission, Raleigh.

A round table conference was made interesting by discussions on "The Problems of the Small Hospital Training School" by Dr. J. M. Shackelford, Martinsville, Va., and "Calculating Food Costs," by Dr. John Bell Williams, Richmond, Va.

Dr. Franklin H. Martin, director general, American College of Surgeons, was the main speaker at the general session that brought the second day's meeting to a close.

The last day was devoted to individual sectional meetings of the three state associations, the closing event being an address by Paul H. Fesler, Minneapolis, Minn., president-elect, American Hospital Association.

Connecticut Hospital Historians in Annual Meeting

The annual meeting of the Connecticut Hospital Historians' Association was held at New Haven, Conn., May 16.

After a business meeting a dinner was served to the members and their guests. The attendance was about fifty.

The after dinner speakers were: Dr. B. Austin Cheney, president, Grace Hospital Association, New Haven, who gave the address of welcome; Dr. Allan Craig, medical director, Charlotte Hungerford Hospital, Torrington, whose subject was "Romance in Medicine"; Dr. Nelson A. Ludington, New Haven, who stressed the importance of standardization in records and cross indexing and the correlation of the pathologist's report and the clinical findings.

Maintaining Hospital Efficiency



No part of a hospital's equipment is more vital than waste disposal. Breakdowns are costly—and dangerous.

Thus it is significant that the principal manufacturers of sterilizing equipment use Sloan Flush Valves: it is noteworthy that the vast majority of the nation's finest hospitals are Sloan-equipped.

These facts are important—but not surprising. For twenty-five years Sloan has manufactured the quality products of the flush valve industry. Small wonder, then, that today Sloan Flush Valves are the first choice of hospital authorities and the standard of comparison by which all others are judged.

Sloan ROYAL and Sloan STAR Flush Valves are made for every hospital requirement, including closets, bidets, urinals, slop sinks, bed pan washers and sterilizers

SLOAN VALVE CO · CHICAGO

Manufacturers of Flush Valves Exclusively for Every Requirement

NEWS OF THE MONTH (Cont'd)

Broad Street Hospital Announces Its Reorganization

During the last few months Broad Street Hospital, New York City, one of the active agencies supplying health service to Lower Manhattan, has been undergoing a reorganization.

A new superintendent, Richard Mackenzie, was appointed October 1. Mr. Mackenzie comes to his work at Broad Street Hospital from an active career in hospital and health administrative work. Under Mr. Mackenzie's direction, the administrative staff of the hospital has been reorganized.

The success of this new reorganization is evidenced by the approval given Broad Street Hospital within the last few months by all important agencies grading and approving hospitals. Broad Street Hospital under the direction of new medical and administrative boards is supplying to Lower Manhattan all the facilities of a modern scientific hospital.

Trustee Is Named President of Michigan Association

L. J. McKenney, trustee, Highland Park Hospital, Highland Park, Mich., was elected president of the Michigan Hospital Association at the meeting of the association in Saginaw, May 20 and 21. Robert G. Greve, University Hospital, Ann Arbor, continues as secretary.

The conference was well attended, and an interesting program was presented under the supervision of Sidney G. Davidson, Butterworth Hospital, Grand Rapids, the association's president for 1930-31.

Nassau County, N. Y., Completes Plans for \$1,750,000 Hospital

The board of governors, Nassau County Public Hospital, which has been authorized by a public bond issue to expend the sum of \$1,750,000 on the first units of a county hospital to be erected on a sixty-acre site at East Hempstead, Long Island, has appointed Dr. S. S. Goldwater, New York City, as its technical adviser. Plans for the first structures as well as a general scheme for the ultimate

expansion of the hospital will be developed under Doctor Goldwater's direction.

The hospital is intended for the accommodation not only of general medical and surgical cases but for the care of contagious diseases. Complete laboratory facilities, an out-patient department and a small psychopathic unit will be included in the plans, as well as wards for chronic diseases and accommodations for convalescents.

This important project was actively promoted by the Nassau County Medical Society, under the direction of Dr. Benjamin W. Seaman, who has been appointed vice-president of the board. Other members of the board are George L. Hubbell, president, Col. Arthur S. Dwight, Joseph J. Kerrigan, and the Hon. Harry L. Hedger. The board will endeavor "to give to the people of Nassau County the finest hospital that can be built for the money made available through the bond issue to which the voters have given their approval."

Coming Meetings

American College of Surgeons.

President, Dr. C. Jeff Miller, New Orleans.
Director general, Dr. F. H. Martin, Chicago.
Next meeting, New York City, October 12-15.

American Dietetic Association.

President, S. Margaret Gillam, University Hospital, Ann Arbor, Mich.
Business manager, Dorothy I. Lenfest, 25 East Washington Street, Chicago.
Next meeting, Cincinnati, Ohio, October 19-21.

American Hospital Association.

President, Dr. L. A. Sexton, Hartford Hospital, Hartford, Conn.
Executive secretary, Dr. Bert W. Caldwell, 18 East Division Street, Chicago.
Next meeting, Toronto, Sept. 28 to October 2.

American Occupational Therapy Association.

President, Dr. Joseph C. Doane, Jewish Hospital, Philadelphia.
Secretary-treasurer, Mrs. Eleanor Clarke Slagle, 175 Fifth Avenue, New York.
Next meeting, Toronto, September 28 to October 2.

American Protestant Hospital Association.

President, Dr. B. A. Wilkes, Hollywood Hospital, Hollywood, Calif.
Executive secretary, Frank C. English, D.D., Hyde Park, Station O, Cincinnati.
Next meeting, Toronto, September 25-28.

American Public Health Association.

President, Dr. Hugh S. Cumming, Washington, D. C.
Next meeting, Montreal, September 14-17.

Association of Record Librarians of No. America.

President, Mrs. Jessie Harned, Rochester General Hospital, Rochester, N. Y.
Corresponding secretary, Ruth T. Church, Boston City Hospital, Boston.
Next meeting, New York, October 12-16.



Scoured clean but unsightly Criticised by Patients

Rigorous hospital scrubbing with disinfectants and cleaning fluids makes toilet seats clean and sanitary. But if the process wears off the surface, permitting cracks and stains to appear, patients are quick to criticise mentally a condition which to them looks unclean, and uninviting. The one sure solution is to install Whale-bone-ite Seats that no amount of use or cleaning can reduce to an unsightly condition.

- Have a tour of inspection made. Have every toilet seat in the hospital looked at. Get a report on their condition. Get rid of old-fashioned, worn-out, unsightly seats and install handsome new Whale-bone-ite Seats in their place.
- Whale-bone-ite always looks new, clean and inviting no matter how much it is used, cleaned or abused. It keeps its beautiful appearance forever. Once installed, Whale-bone-ite never has to be replaced. It is guaranteed for the life of the building, ending your replacement expense once for all.

*Send Coupon for New Book
"Install Them Once They Last Forever"*

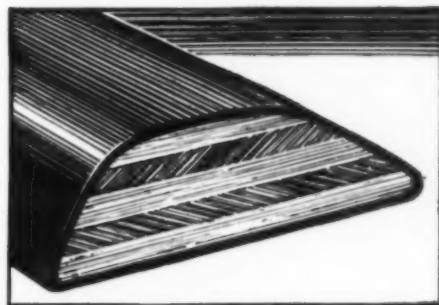
To insure proper toilet seats in present buildings or new hospitals, get the complete story of Whale-bone-ite Seats as told in this new book. No cost or obligation. Send coupon today. Address, The Brunswick-Balke-Collender Co., Dept. M-15, 623-633 So. Wabash Avenue, Chicago, Ill.

Brunswick
LAMINATED
WHALE-BONE-ITE
TOILET SEATS

**It takes a whale of a seat
to stand public toilet abuse**

In this cross-section note the cross-grain, laminated construction, exclusive with Brunswick, that gives Whale-bone-ite a super-strength that defies time and abuse. It is the only construction that combines unbreakable strength with necessary lightness and sanitary qualities.

Jet-black, glass-smooth and diamond-hard, Whale-bone-ite beauty never wears off seat or hinge. Unaffected by acids, disinfectants and cleaning fluids. No exposed metal hinges to corrode, to collect dirt or need polishing. No cracks to harbor dirt and germs. Easy to keep clean and sanitary with minimum effort. Non-inflammable. With all these advantages Whale-bone-ite costs no more than the cheapest moulded composition seat made.



WHALE-BONE-ITE CROSS-SECTION

The Brunswick-Balke-Collender Co.
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Gentlemen: Please send me without cost or obligation a copy of your new book on Whale-bone-ite Toilet Seats.

Name

Name of Hospital

Street

City State

PERSONALS

COL. ROBERT U. PATTERSON has been named surgeon general of the army to succeed Maj. Gen. Merritte W. Ireland, retired. Colonel Patterson was from 1925 to 1930 in command of the Army and Navy General Hospital, Hot Springs, Ark.

COL. JOHN L. SHEPARD, superintendent, Hamot Hospital, Erie, Pa., died recently.

DR. JEROME V. PACE, for more than seven years superintendent of the Lima District Tuberculosis Hospital, Lima, Ohio, has resigned to become superintendent, Indiana State Tuberculosis Hospital, Rockville, Ind., succeeding DR. AMOS CARTER who resigned last December after thirteen years of service. DR. O. E. HARVEY, Ohio City, Ohio, succeeds DOCTOR PACE.

HANNAH LYONS is the newly appointed superintendent, Peekskill Hospital, Peekskill, N. Y., succeeding CARMEN PRICE.

WILLIAM E. PROFFITT, superintendent, Deaconess Hospital, Buffalo, N. Y., has recently been elected to the superintendency of the Ithaca Memorial Hospital, Ithaca, N. Y., succeeding FERDINAND C. HILKER who resigned because of ill health.

COL. CARROLL D. BUCK has been appointed commander of Fitzsimons Hospital, Denver, Colo., succeeding the late COL. PAUL S. HALLORAN.

DR. T. R. PONTON is now superintendent of the University Hospital, Augusta, Ga.

PEARL E. PARKER has resigned as superintendent, Pottstown Hospital, Pottstown, Pa., to accept a position at Cornell University, Ithaca, N. Y.

DR. GEORGE M. SMITH, who was for years superintendent, Methodist Hospital, Indianapolis, has been named superintendent emeritus of that institution. DR. JOHN G. BENSON, formerly superintendent, White Cross Hospital, Columbus, Ohio, is actively in charge of the hospital. THE REV. FRANK G. FOWLER will succeed Doctor Benson at White Cross Hospital, and WILBUR H. MORLAND will retain the position of assistant superintendent there.

DR. B. A. WILKES is severing his connection with the Hollywood Hospital, Hollywood, Calif., and will return to St. Louis where he will devote his time toward the program and preparations for the meetings of the American Protestant Hospital Association and the American Hospital Association in Toronto.

INA M. JENSEN, superintendent, Selma Sanitarium, Selma, Calif., has resigned and is succeeded by JOHANNA MIKKLESEN, a member of the sanitarium's nursing staff for the last five years.

BERTHA E. PICKELS has resigned as superintendent of the King's Daughters' Hospital, Staunton, Va., after a service of six years.

ELIZABETH MILLER has been named superintendent of the Paul Kimball Hospital, Lakewood, N. J., to succeed FRANCES M. DOUD who resigned to become director of a new hospital in Southbridge, Mass.

DR. GEORGE B. DORNBLOSSER has been elected superintendent of Berwick Hospital, Wilkes-Barre, Pennsylvania.

EMMA M. DARDEN has recently become superintendent, Lakeview Hospital, Suffolk, Va. FRANCES PERRY has been appointed assistant to Mrs. Darden.

GWENDOLYN FRANKLIN succeeds FRANCES BENSON as head of the medical records department, Bryn Mawr Hospital, Bryn Mawr, Pa., while MISS BENSON is spending her sabbatical year on the California coast. ELLEN CARDWELL will serve as MISS FRANKLIN's assistant.

JOHN B. FRANKLIN, superintendent, Georgia Baptist Hospital, Atlanta, Ga., has been elected to succeed STEVE R. JOHNSTON as superintendent, Grady Hospital, Atlanta. MR. FRANKLIN assumed his new position on June 1. W. D. BARKER, formerly superintendent, Noyes Baptist Hospital, St. Joseph, Mo., has been named to succeed MR. FRANKLIN.

CHARLES A. WORDELL, manager, St. Luke's Hospital, Chicago, has been elected president of the Chicago Hospital Association, succeeding J. DEWEY LUTES.



Where a WOMAN'S JUDGMENT « « « is needed



In one cross-section of American Industry, women occupy a position of unique leadership. Where beauty and freedom from flaw form the basis for acceptance or rejection of the finished product . . . in paper mills, textile mills, printing plants and elsewhere . . . woman's keener eye and judgment are called on.

One reason for the unusually high and uniform quality of Mayer



China is that every piece shipped must first bear the critical examination of a trained and experienced woman inspector.

MAYER CHINA CO., Beaver Falls, Pa.
Vitrified Hotel Ware Exclusively

COSTS LESS
PER
GUEST SERVED

MAYER CHINA

PERSONALS

THE REV. WILBUR N. MASON is the newly appointed superintendent, Bethany Methodist Hospital, Kansas City, Kan., succeeding the REV. T. RESTIN HEATH, who recently resigned.

LUCIE H. JESSE has been named superintendent, King's Daughters' Hospital, Portsmouth, Va., succeeding FANNIE PAGE ALLEN, resigned. MISS JESSE has served as head of the Loudoun County Hospital, Leesburg, Va., for the last eighteen months.

DR. H. F. GAMMONS, Lockport, N. Y., has been selected as superintendent of the new tuberculosis hospital which is being constructed east of Amherst, Ohio. DOCTOR GAMMONS comes to his new position from the superintendency of the Niagara Sanitarium, Lockport.

H. K. FORD recently assumed the superintendency of the Little Rock General Hospital, Little Rock, Ark.

WILLIAM SLOVER is the newly appointed assistant superintendent, Children's Memorial Hospital, Chicago.

GLADYS COLLINS has resigned as superintendent, Davis Hospital, Pine Bluff, Ark.

DR. CHARLES H. BENSON has resigned as medical superintendent of the Syracuse Free Dispensary, Syracuse, N. Y., after a service of thirty-five years.

V. RAY ALEXANDER has been named to succeed DR. E. J. LEE as superintendent, City Hospital, St. Louis.

DR. CHARLES L. CHASSAIGNAC has resigned as superintendent, Eye, Ear, Nose and Throat Hospital, New Orleans, after eight years of service.

LUCIA L. JAQUITH, for thirty years superintendent, Worcester Memorial Hospital, Worcester, Mass., died recently. MISS JAQUITH had not been connected with the hospital for some time prior to her death. She was a former vice-president of the American Hospital Association.

JOSEPH PURVIS is the newly appointed superintendent, Jackson Park Hospital, Chicago.

Dr. Harry T. Summersgill, Eminent Administrator, Dies

Dr. Harry T. Summersgill, eminent hospital administrator, died on June 16 after a prolonged illness.

Doctor Summersgill had an enviable record of hospital service. After working on the staffs of Bellevue Hospital and New York Eye and Ear Infirmary, New York City, he went to Panama where he entered the Federal service. He helped to organize hospitals and dispensaries there under the direction of the late Gen. W. C. Gorgas.

In 1912 he became superintendent of the Post-Graduate Medical School and Hospital, New York City, and in 1913 he became the first superintendent of the Cincinnati General Hospital, Cincinnati. Later he was made head of the University of California Hospital. During the World War, Doctor Summersgill was in charge of the hospital at Chaumont, France.

Dr. Edward N. Brush Resigns From *Journal of Psychiatry*

Dr. Edward N. Brush, with the *Journal of Psychiatry* since 1878, has terminated his editorial connection with the magazine.

Doctor Brush's valedictory is contained in the issue of May, 1931, which marks the close of the eighty-seventh year of continuous publication of the magazine.

Chicago Superintendent Dies

Elmer E. Sanders, aged sixty-three years, superintendent of the Ravenswood Hospital, Chicago, died Saturday, June 6. Mr. Sanders had been the administrator of Ravenswood since its beginning eight years ago and was one of the leaders of his community. He had been the president of the Ravenswood Kiwanis Club, a trustee of the Presbyterian Church and at the time of his death was the president of the Hospital Association of the State of Illinois, having been reelected at the May meeting of that association. Mr. Sanders was active in the American Hospital Association and also in the Chicago Hospital Association.



He Took Up the Draftsman's Pencil to Battle Constipation

The daily output of a lathe operator drops. A child grows listless and inattentive as the school day drags into afternoon. An office worker slumps idly at his desk, neglecting the work before him.

The boundless energy that drove a business genius to the top rung of the ladder, slips silently away, leaving only a dull clod of a mind and body.

Yet doctors tell us that constipation is really nothing but a habit—or rather the lack of one. It is a chronic disorder, of millions, induced by irregular evacuation during youth.

The Clow Soldier of Sanitation took up the draftsman's pencil to fight this enemy of modern man and industry.

His first attack was for the coming generation. It resulted in a closet bowl, efficiently designed to make evacuation easier and more certain for school children.

For many years careless designers had been inflicting high bowls upon children in school toilet rooms.

The seat of the Clow Bowl was lowered, 2 inches closer to the floor. The position of the

child is natural, with knees high and stomach muscles relaxed. Thus by making evacuation easier, regularity is made more of a habit.

Following this first bowl have come others on the same idea to help grown-ups in all walks of life.

And the Soldiers of Sanitation score another important victory in their battle against uncleanliness, pollution, ill-health and inefficiency.



The Clow Soldier of Sanitation is a specialist on the acute problems of sanitation that confront every builder of a school, hospital, industrial plant or other public building. At his finger tips is the accrued experience of Clow's 52 years experience—at his back the complete line of fixtures to meet every mass plumbing need. Call him in. This is Jerry Kinnally, Chicago Office—Arch. Rep.

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PREFERRED FOR EXACTING PLUMBING SINCE 1878

Consult your architect

DIETETICS AND INSTITUTIONAL FOOD SERVICE

Conducted by ANNA E. BOLLER, Central Free Dispensary at Rush Medical College, Chicago

Treating Nutritional Anemia

By HELEN S. MITCHELL

Battle Creek Sanitarium and Battle Creek College, Battle Creek, Mich.

ONE of the most interesting chemical substances in the body is the hemoglobin of the red corpuscles. The exact chemical structure of the compound is still in question in spite of extensive research on the subject, but its physiological significance is better understood. The importance of having an adequate amount of hemoglobin in the red cells of the blood to act as an oxygen carrier from the lungs to the tissues is universally recognized. A serious condition results when the normal level of this blood constituent fails to be maintained.

In pernicious anemia the fall in the hemoglobin is secondary to the reduction in the number of erythrocytes. When the cells in the red bone marrow fail to mature and become normal red blood cells, the fault is not a deficiency of hemoglobin, but a pathological condition of the cell forming mechanism that has been found to respond in a remarkable way to liver and stomach extract therapy. I shall not attempt in this article to discuss this type of anemia or its treatment, and I have mentioned it only that confusion in understanding the condition described and the purely secondary anemia may be avoided.

Whatever the type of secondary anemia, the low level of hemoglobin is always of major significance, and the synthesis of this compound in the

Miss Mitchell has spent the years since her graduation from Mt. Holyoke College in 1917 doing research and teaching along the lines of physiological chemistry. She was graduated from Yale University in 1921 with the Ph.D. degree in physiological chemistry. In that year she became director of nutrition research at Battle Creek Sanitarium.

body is a purely chemical process that generally proceeds without difficulty if the necessary constituents are supplied by food.

When there is a sudden loss of blood due to hemorrhage, either internal or external, new hemoglobin and other blood constituents must be made available more rapidly than is normal. The result is not a simple anemia but a condition of excessive drain upon the body resources

to make up the deficit in all blood constituents. Hemorrhagic anemia produced in dogs by Robscheit-Robbins and Whipple has been used extensively by them in contributing to our knowledge of the effectiveness of various foods and mineral supplements in increasing the rate of blood regeneration under these specific conditions. The results are significant but are applicable only to hemorrhagic anemia.

Certain infections may also cause rapid blood destruction, thus creating a condition not unlike actual loss of blood except that the disposal of the resulting breakdown products may be an aggravating factor. In either of the foregoing types of anemia, blood elements other than hemoglobin are lost or destroyed. Several food constituents may therefore be involved in making good the resulting complex deficit.

This article is concerned with a third and some-

In Fine Hospitals Everywhere



The Gorham hot water plate is an indispensable part of the equipment..

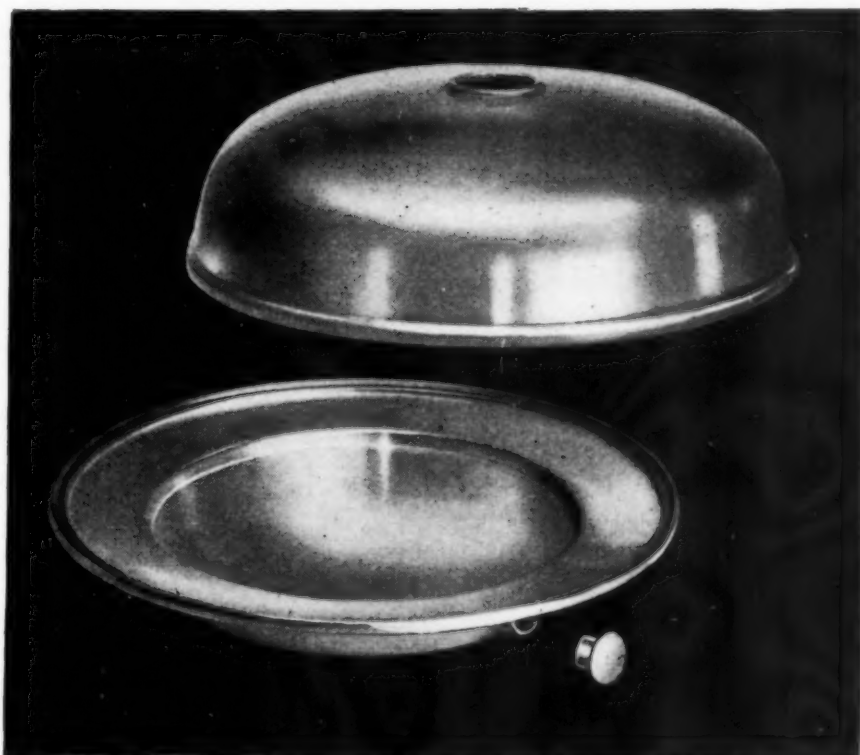
WELL-equipped hospitals everywhere are adopting the Gorham hot water plate. It is convenient, easily cared for and insures food reaching patients piping hot.

The plate is 8½" in diameter. It and its cover are made of nickel silver, heavily silver plated.

And the care these plates demand is almost negligible—they can be filled, dozens at a time, from the same tap; they are so simple in line and design that they are easily and quickly cleaned.

Below is a partial list of fine hospitals in all parts of the country which are now using the Gorham hot water plate.

No soft metal or soft solder is used in the construction of Gorham hospital silverware.



Alameda, Calif.
Alameda Sanatorium

Berkeley, Calif.
Alta Bates Hospital

Buffalo, N. Y.
Children's Hospital

Clearfield, Pa.
Clearfield Hospital

Durham, N. C.
Watts Hospital

Haywood, Calif.
Haywood Central Hospital

La Jolla, Calif.
Scripps Metabolic Clinic

Los Angeles, Calif.
Kaspar Cohn Hospital
St. John's Hospital

Milwaukee, Ore.
Portland Open Air Sanatorium

Morristown, N. J.
All Souls Hospital

New York, N. Y.
French Hospital
Hunts Point Hospital
Neurological Institute

Oakland, Calif.
East Oakland Hospital
Providence Hospital

Pasadena, Calif.
Pasadena Hospital

Phoenix, Ariz.
St. Joseph's Hospital

Pittsburgh, Pa.
Allegheny General Hospital

Portland, Ore.
Dr. R. C. Coffee Clinic & Hospital
St. Vincent's Hospital

Riverton, Wash.
Riverton Sanatorium

Sacramento, Calif.
Mater Misericordiae Hospital
Sutter Hospital

San Francisco, Calif.
Children's Hospital
Mount Zion Hospital
St. Francis Hospital

San Francisco, Calif. (continued)
St. Joseph's Hospital
St. Luke's Hospital

San Luis Obispo, Calif.
San Luis Obispo County General Hospital

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what simpler type of secondary anemia, commonly known as nutritional anemia. Some factor necessary for the synthesis of hemoglobin is lacking or is insufficient in quantity in the food supply. The result is a gradual lowering of the hemoglobin level with comparatively slight change in the other blood constituents. That iron is the hemoglobin factor most apt to be deficient in human food has long been recognized. As early as 1889, Bunge noted that milk was low in iron and that any young animal maintained on milk for any appreciable time after the normal nursing period was subject to some degree of anemia, the more so in those animals having the lower store of iron in the liver at birth.

Rats Used Successfully

The guinea pig, well developed when born and, in addition to nursing, able to eat green food, has a limited storage of iron in its liver, while the rat, which is exceedingly rudimentary at birth and must be dependent for two or three weeks on milk as the only food, has a much larger relative storage of iron. In the human there is a similar prenatal deposit of iron in the liver to take care of the demands during the greater part of the nursing period, but studies on nursing infants indicate that this reserve is frequently exhausted and the hemoglobin level reduced before supplementary food iron is supplied.

The rather frequent occurrence of a mild form of nutritional anemia in humans at various ages—infancy, adolescence and pregnancy—and the ease with which a similar condition may be produced and cured in animals have led to considerable research on the subject. The emphasis given in the medical literature to the treatment of pernicious anemia has somewhat overshadowed and diverted attention from the clinical application of the recent and interesting discoveries in the field of nutritional anemia. The few observations on children cited later in this paper are most encouraging but they need confirmation by additional data obtained in institutions where diet and other conditions may be controlled. A brief survey of the experimental findings may give impetus to further clinical observations.

It is well known that rabbits, pigs, rats and chickens will develop an anemia when fed on an exclusive milk ration during the rapid growing period. Early attempts to produce severe anemia in young rats, however, failed when access to the mothers' ration during the third or fourth week of nursing provided a surplus of iron and other minerals, a reserve that was depleted with difficulty during a subsequent period on cow's milk. With the idea of decreasing the prenatal storage

of iron as well as that at a later period, mother rats were placed on a milk ration during gestation and lactation. Thus the mineral available to both mother and offspring was curtailed. This device was satisfactory and afforded the first young anemic rats for experimental work at the time that several other laboratories were having doubtful success in the production of milk anemia in rabbits.

A further proof that rats were the more satisfactory experimental animals for this type of work was presented when Hart and Steenbock, followed by several other laboratories, demonstrated that the anemia could be produced in young rats without a depletion period for the mother during gestation if the young were never allowed any food but milk. Such rats are a little older when the anemia develops but other complications, such as vitamin B deficiency, are thus avoided. Their store of iron is well depleted by the time they are from eight to ten weeks of age. At weaning the blood of young rats contains about eight or nine grams of hemoglobin to each 100 cubic centimeters. This may be reduced to between three and four grams in the four to six weeks following when they are fed exclusively on milk. It may be noted in contrast that on an adequate stock ration the hemoglobin increases to between fifteen and sixteen grams during the same period of time.

Young rats suffering from "milk anemia" show colorless eyes, white ears and feet and a lack of vitality which is evidenced by slow and few movements and low resistance to a drop in room temperature. Growth is also somewhat retarded but scarcely ever entirely inhibited until the anemic condition becomes so extreme that death may result soon if no change is made in the diet.

An Obsolete Theory

Our recent work has demonstrated the necessity of waiting until a uniformly low hemoglobin is reached before making any supplementary mineral additions. This procedure allows the nearest possible approach to a complete depletion of the necessary mineral stored in the organism and affords a uniform starting point for recovery. It is through the use of such experimentally produced and accurately controlled anemia in rats that several research laboratories have recently added new chapters to the story of nutritional anemia.

It has long been a disputed question as to whether or not iron need be in organic combination to be available for hemoglobin synthesis in animals. Experimental findings chiefly during the last decade and the occasional favorable results observed clinically after giving doses of inorganic

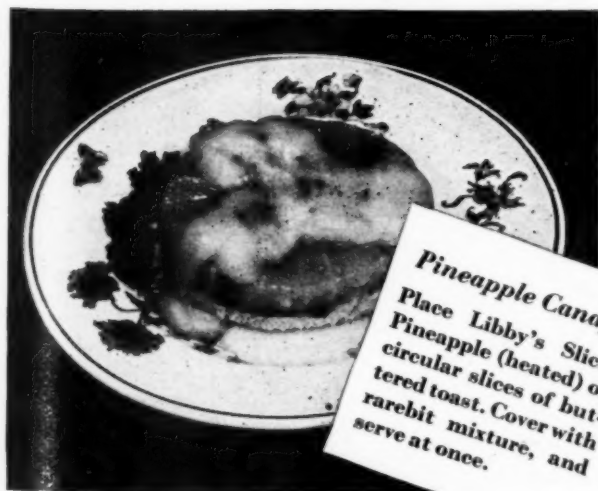
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or so-called medicinal iron have led to modifications of the older hypothesis that inorganic iron could not be absorbed or utilized by the animal body. This theory is now quite obsolete. A conservative and transitional modification of this theory maintained that inorganic iron given in large doses might be absorbed and act as a stimulant to blood formation and a sparer of body iron but that it could not be used directly in blood building.

Other Minerals Necessary

Results of recent research, however, both on animals and humans indicate that not only can inorganic iron be absorbed but that it can also be utilized for hemoglobin synthesis apparently just as organic or food iron is used. It is necessary that this iron be in a soluble and available form and that it be accompanied by certain other minerals in order to function efficiently. Many foods rich in iron satisfy these conditions better and more palatably than any artificial source. There is, however, no further question of organic *versus* inorganic iron, nor of ferrous *versus* ferric ions, but rather of other factors associated with iron which determine its usefulness in the body.

Experimental findings leading up to these conclusions and adding materially to our knowledge of iron metabolism have been contributed by various laboratories. Milk has been used as a convenient basal ration in most of these investigations. Wisconsin workers found that the iron content of either goat's or cow's milk was constant irrespective of changes in the iron content of the ration. My co-workers and I found that the iron from various foods was about equally well utilized by rats if the amount of iron ingested was equivalent (0.5 mg. daily). Later work showed that the ash of spinach was as effective as the original food, provided it was fed in soluble form and on the same iron basis. Similar quantities of iron from a variety of inorganic sources showed an irregularity in response that could not then be accounted for. It was possibly due, however, to copper or other contamination, the significance of which was not recognized at the time.

The Wisconsin group also observed that the purer the iron salt was, the less effective it became in the cure of nutritional anemia in rats. The addition of lettuce, yellow corn or liver either as such or after ashing made the same amount of iron promptly effective. Further proof was thus offered that some inorganic substance other than iron and active in extremely small amounts was essential for hemoglobin formation. McHargue found that when the copper was removed from liver ash its potency in blood building was greatly

reduced. These findings would indicate that in addition to the organic factor in liver known to be potent in stimulating red cell formation, the inorganic complex is an aid in hemoglobin synthesis. On the latter basis, liver may function in nutritional anemias just as any other good source of the necessary minerals does, but it should not be considered specific in such cases.

Fractionation of liver ash into its chief mineral components disclosed the presence of several elements other than iron. Significant among these was copper in such appreciable amounts as to contribute a bluish color to the ash. Each of the elements in turn was fed in the form of a soluble salt along with a pure iron salt as supplementary to a milk ration. Copper was the one and only mineral which Hart, Steenbock and their co-workers found to have a specific catalytic effect. Subsequent work by other investigators suggested that several other minerals, especially manganese, had properties similar to copper.

Our own work on a water extract of spinach and its ash seemed to indicate that the combination of elements present in the ash stimulated a somewhat quicker and a higher hemoglobin regeneration than any combination of iron and copper that had been tried. Later and more extensive studies on quantitative variations in iron, copper and manganese, have, however, failed to disclose any appreciable supplementary effect of manganese as compared with that of iron and copper used in optimum proportions (0.5 mg. Fe + 0.1 mg. Cu). Details of this report are soon to be published.

Copper a Supplement

From these data and the reports from several other workers in the field it may be concluded that copper is specific as a supplement to iron for hemoglobin regeneration in milk anemia in rats. There is some indication that manganese may have a slight stimulating effect on growth and food intake, but in doses ranging from .01 to 1 mg. daily its effect upon the blood picture is negligible.

Conflicting results reported by Beard and Myers may be due to an initial storage of the minerals and consequent spontaneous recovery or to some unrecognized factor of contamination in caging or feeding. The recent announcement by Drabkin and Waggoner that certain amino acids are potent in the cure of nutritional anemia awaits verification by other workers. Synthetic rations sufficiently free from copper for this type of work are most difficult to prepare and may constitute a significant source of error. A consistently low initial hemoglobin is also a necessary precaution which has not always been observed by all investigators.

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The possibility that all animals are not equally dependent upon copper as a supplement to iron for hemoglobin synthesis must be considered. Anemia developing in suckling pigs kept indoors is apparently relieved by the use of pure soluble iron salts, but the difficulty of avoiding all copper or other mineral contamination in the pens makes it impossible to be sure that iron alone is effective in this case. Other factors such as sunshine or ultraviolet light from some artificial source appear to have no effect. Similar negative results with ultraviolet light were obtained in the treatment of nutritional anemia in rats.

What One Experiment Disclosed

How many of these facts determined experimentally are directly applicable in human nutrition must be ascertained by observations on humans. The extensive series of clinical data on infants and young children obtained by Dr. Helen Mackay, Queens Hospital for Children, London, are well controlled and extremely significant. A typical hemoglobin age curve determined by observations on a large number of normal infants affords a basis for comparison that should be helpful to every pediatrician.

Doctor Mackay found that the great majority of artificially fed infants and many breast fed infants in London are anemic, and that this condition was more closely correlated with an inadequate iron intake than with any vitamin or other deficiency. Outdoor life or ultraviolet light treatments did not cure the condition, nor did a lack of such *per se* appear to be an etiological factor. Infants having a low birth weight showed a more severe anemia than infants heavier at birth, but statistical studies of these data indicated that the low hemoglobin was more closely correlated with the rapid growth rate displayed by the former.

Iron and ammonium citrate in doses up to four and a half grains daily was administered to infants as young as four weeks. Two and three times this dosage was used with older infants. The iron supplement was incorporated in the milk feedings and the change made gradually to the new mixture to avoid digestive disturbances. Distinctly beneficial results were evident not only in the rise of hemoglobin level in the blood, but also in an increased rate of gain in body weight and in a lowering of morbidity to approximately half that of the control group. A statistical critique of her data carries the assurance that the number of infants treated was sufficiently large to warrant Doctor Mackay's conclusions in spite of the individual variations encountered. The iron and ammonium citrate used contained traces of both copper and manganese, but it has been impossible

to determine how far these may have been responsible for the results obtained.

Several workers in this country have instigated clinical tests with copper as a supplement to iron in the treatment of nutritional anemia. In many cases the results have been favorable, but little has been published on the subject. The most extensive observations reported in the literature were made by M. S. Lewis on thirty-four children ranging in age from six months to seven years. He fed iron as saccharated ferrous carbonate, fifteen to sixty grains daily, and copper as a .5 per cent copper sulphate solution, one or two teaspoonfuls three times daily. He concluded that iron and copper given in combination was definitely more effective than iron given alone in cases of nutritional anemia in children. Mills has also shown beneficial results of a combination of iron and copper in ten cases of secondary anemia.

The average individual on a well balanced diet obtains an adequate amount of both iron and copper in natural foods, unless a special strain or increased demand is imposed upon the organism. Under such circumstances, however, when it is necessary to reinforce the blood building factors it seems logical in the light of present experimental and clinical data that copper as well as iron should be given and that both may be administered conveniently by mouth in the form of soluble inorganic salts.

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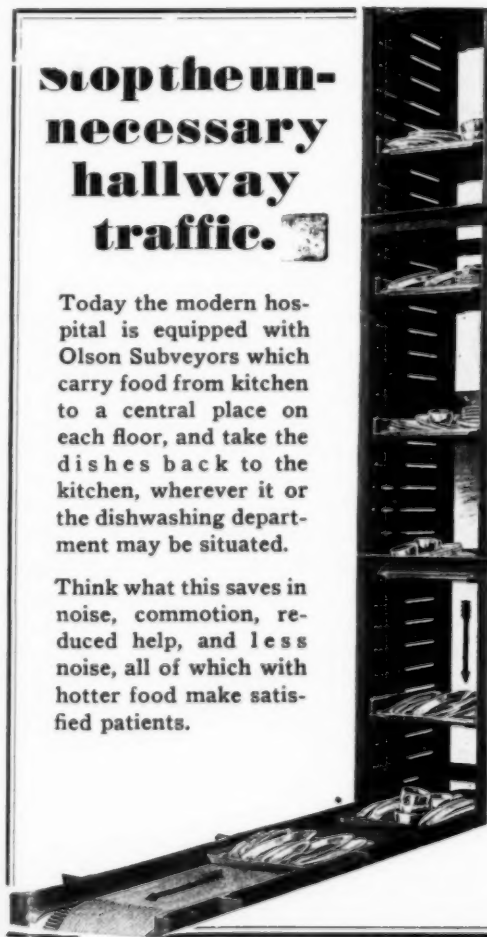
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Conducted by MICHAEL M. DAVIS, Ph.D.
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Private Group Clinics: Where, How and Whom They Serve

By C. RUFUS ROREM, Ph.D., C.P.A.

The Committee on the Costs of Medical Care, Washington, D. C.

THE private group clinic is a comparatively recent development in medical practice. Most of the clinics now in existence have been organized since the recent war. It is estimated that there are approximately 150 of them in the United States. They are most frequently encountered in the Middle West and to some extent in the West and South. Only a few group clinics have been organized in the Eastern states.

The facts brought out in this article are based on the policies and procedures of fifty-five such clinics.¹ The total medical personnel of all the private group clinics in the country probably numbers about 2,000. Most clinics utilize the service of ten or fewer medical and dental practitioners, although some are much larger.

Characteristic Features

The private group clinic may be defined by several characteristic features—professional, financial and administrative.

1. Its physicians and dentists use many facilities in common, particularly office space, laboratories and scientific equipment.

2. Its physicians, all or most of them, are associated with the clinic on a full-time basis.

3. Its services include two or more medical specialties, and an attempt is usually made to hold available complete facilities for the patients.

4. Its patients are the responsibility of the entire group, not merely of individual physicians, although, when consultations and special diagnoses are not required, one practitioner may alone treat a given case.

5. Its income is "pooled," and its members deter-

mine individual incomes by contract among themselves, rather than directly from their services to patients.

6. Its administration is carried on by a business man rather than by a physician, as far as non-medical matters are concerned.

7. It is in direct economic competition with the independent practitioners of the community.

How Finances Are Handled

Clinic members, in their practice of medicine, are usually organized into partnerships, although an increasing number are forming corporations for this purpose. Clinic members, as owners of plant and equipment, frequently organize separate corporations, leasing the assets to themselves as medical practitioners. This arrangement makes possible an appropriate division of earnings when the capital investments of partners are substantially different. It also permits individual physicians to assume personal responsibility for services.

The average capital investment in plant and equipment, excluding hospital facilities, is approximately \$10,000 per practitioner in seven clinics whose managers supplied information on this point. The average capital investment in medical equipment and apparatus is approximately \$3,600 for 217 practitioners in 19 clinics.

Investment in plant and equipment owned by the medical practitioners or their corporations has usually been made by, or on the credit of a few individual physicians. Loans have been secured by mortgages on the property and paid from the earnings of, or rental paid by the clinics. Shares of stock in clinic property, so far as their investigation revealed, have been sold only to clinic associates.

The physical features of group clinics are not un-

¹A fuller and more critical discussion, dealing also with the relationship of the group clinics to independent practitioners and the community, is presented in Publication No. 8 of the Committee on the Costs of Medical Care.

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like those of a hospital out-patient department or of an office building devoted primarily to medical care. Each clinic has one or more waiting rooms for patients, examining and consultation rooms for the use of each physician, laboratories for x-ray, pathologic or physiotherapeutic services, minor operating rooms and a central office for financial or medical records.

Clinics Closely Affiliated With Hospitals

The larger clinics, with fifteen or more practitioners, generally occupy space in separate buildings (sometimes in hospitals), but a great many utilize space in office buildings. Most clinics do not own or operate hospitals, but depend upon a close affiliation with specific institutions already established in the community for the hospitalization of patients treated by clinic physicians. The clinics usually own or control all medical equipment and apparatus used in the treatment of ambulatory patients.

The personnel of a private group clinic may be divided into two general classes—medical practitioners and all others. Clinic practitioners may be further subdivided into two classes—those who share in the ownership of the clinic and participate in its profits and those who are employed on a salary basis.

For 167 physicians who were "owners" in 34 clinics, the managers of which provided data on this point, the average number of years since graduation is 20, and for 139 employed practitioners in 29 clinics the average of years since graduation is 8. For the dentists associated with these organizations, the average is 12.

Table I presents the reported distribution of medical specialties among 601 practitioners in 50 clinics. The groups classified under "surgery" and "internal medicine" include slightly more than one-half of the doctors associated in clinic practice. Specialists in diseases of eye, ear, nose and throat rank third, with other classes in much smaller numbers. The figures are based upon the clinic reports of the number of physicians specializing exclusively in these various fields of medicine. Among the group classified under "internal medicine," there are many who specialize completely or in part in gastro-enterology, cardiology, chest diseases or pediatrics. Under surgery there are included not only abdominal and head surgeons, but also some orthopedists.

An important development in group clinic practice is the "business office," a separate department, under a lay business manager more or less independent of the activities of individual physicians. The authority and responsibilities of the business manager are of wide range, varying from the rou-

tine tasks of bookkeeper to executive responsibility for financial policies, the planning of building extension, the purchase of equipment and the economic appraisal of the services of practitioners with a view to apportioning net profits or establishing salaries.

The business manager is an employee of the clinic, with duties and responsibilities determined by the clinic physicians. In the course of this inquiry no case was discovered in which the manager participated in determining the amount or nature of medical diagnosis or treatment to be rendered to individual patients.

The practice of the typical private group clinic is essentially "local," with a large number of the patients drawn from neighboring towns, although individual physicians, and a few clinics, may attract patients from great distances.

The majority of patients served in private group clinics, in the opinion of the clinic managers, are

TABLE I—MEDICAL SPECIALTIES IN 50 PRIVATE GROUP CLINICS, 1929

<i>Medical Specialty</i>	<i>Number of Clinics Reporting the Specialty</i>
Internal medicine	50
Surgery	50
Eye, ear, nose, throat	46
Obstetrics	37
Urology	35
Pediatrics	30
X-ray	27
Pathology	26
Dentistry	17
Gynecology	17
Orthopedics	8

persons of moderate means, with a considerable number who might be classed as well-to-do and a few others who are very poor.

Clinic physicians appear to be "on service" in nonprofit and local government hospitals on the same basis and to about the same extent as would a similar number of independent practitioners. None of the clinics owning hospitals conducts a free out-patient department, but each gives free services directly in the clinic offices.

Determining the Fees

The fees in a private group clinic are fairly uniform for services involving the use of medical equipment and apparatus. Fees vary greatly, however, for services that depend primarily upon the counsel or skill of a practitioner.

Individual practitioners have a voice, but usually not the final one, in the establishment of the fees charged to patients of the clinic. On the other

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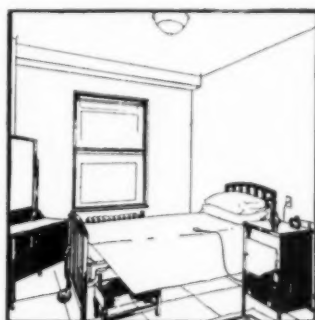
THE Centralized Control call system for nurses is new in principle. In operation it functions as explained briefly in the illustrated descriptions. Because the human voice is put actively into use, there can be no misunderstanding between patient and personnel. When the patient presses the call button the nurse at the floor station knows instantly that service is wanted. She does not — as with light signals alone — have to go to the room. Instead she asks the patient what he wants and gets definite information.

Then if the patient's request calls for service from some other department, diet kitchen, linen room, utility room, the nurse at the station can get in touch with these places, and the patient can thus be waited on without delay and without useless running back

and forth. Resetting of locking button can be made at nurse's station or at bedside. A light over the door of the patient's room also attracts the attention of the nurse if she happens to be in the corridor.

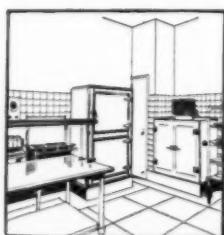
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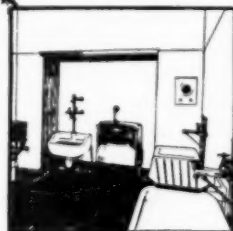
The patient presses the call button of the bedside unit. He indicates his wish and is given an audible and intelligent answer. A light also appears over the door of the room.

A light signal with or without buzzer registers the call at the nurse's station. She answers the call verbally and assures the patient of immediate consideration. No trip has to be made to the room.

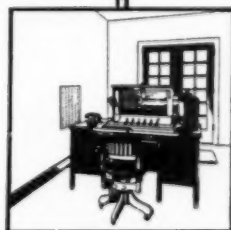


If the patient's call concerns the diet kitchen, the nurse at the station speaks directly with that department. Orders are conveyed and fulfilled without delay. Again no steps are wasted.

If the patient's call concerns the utility room or the linen room, or if the floor nurse is in either of these places, instant contact is established. Again no steps are wasted.



If the main office has to be reached, that too is instantly available.



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hand, the wishes of doctors are respected, particularly when physicians recommend a reduction of charges for personal or professional reasons.

Standard fees for difficult diagnoses and for special types of treatment (such as for maternity cases) have been established by some clinics. Standard fees for annual medical service also have been offered to some special groups served by private group clinics.

Fees are at times adjusted on the basis of "medical benefit" to the patient, particularly for the personal services of practitioners. Standard fees are

of independent practitioners, 8 state that they are "higher," and 13 that they are "lower."

Credit investigations, which are a regular clinic procedure, are carried on for two reasons—to obtain information as the basis for establishing a fee if there is a question of the ability of a patient to pay the usual charges and to guide the collection policy after services have been given.

Investigating Private Clinic Patients

Private group clinics obtain information to a greater or lesser extent from local credit bureaus, "blue-books," reports of national rating agencies, banks and commercial creditors. Some of them merely interview the patient, requesting data as to his occupation, his income, his resources, and his family responsibilities. Collection procedures of private group clinics resemble those of business enterprise in that reasonable efforts are made to enforce collection of fees. Clinics rarely resort to legal measures to obtain settlements of accounts owed them.

How do practitioners engaged in group medical practice distribute the receipts from services to patients? Remuneration of clinic members may be considered as of two kinds: (1) designated salaries or drawing accounts; (2) shares in the net profits. These two types of remuneration merge in practice, and it is often impossible to distinguish the earnings that a clinic member receives as a professional employee from those accruing to him as an owner in the enterprise.

What Clinic Practitioners Earn

Clinic practitioners vary greatly in the personal attainments that tend to encourage large incomes. Table II sets forth certain data with respect to the average net incomes of the associates in 27 clinics. By net income is meant the total amount distributable as cash income to practitioners, over and above allowances for insurance, taxes, free service, rent, special study, research, interest on invested capital and depreciation of plant and equipment. The average amount of clinic net income per practitioner is approximately \$9,750, ranging for individual clinics from \$5,980 to \$17,449, with a median of \$9,019.

Clinic members maintain that they have reduced the costs of medical care to the public by improving quality without increasing fees, by reducing fees for equivalent services or by conserving the patients' time during the period of diagnosis and treatment. Clinic managers, almost without exception, say that the medical practice of their respective clinics is increasing, in terms both of numbers of patients and of the amount of cash income.

TABLE II—NET INCOME PER PRACTITIONER IN 27 PRIVATE GROUP CLINICS, 1929

<i>Clinic</i>	<i>Number of Physicians</i>	<i>Net Clinic Income per Practitioner</i>
1	9	\$17,449
2	15	15,762
3	3	15,178
4	8	14,500
5	21	12,167
6	4	12,057
7	11	11,039
8	22	10,636
9	9	10,464
10	11	10,001
11	14	9,601
12	9	9,542
13	11	9,153
14	11	9,019
15	8	8,967
16	17	8,747
17	5	8,735
18	18	8,572
19	22	8,422
20	10	8,379
21	14	8,189
22	11	8,184
23	23	7,560
24	3	7,005
25	11	6,651
26	5	6,382
27	5	5,960

also adjusted on the basis of the patient's financial status, to much the same degree as in independent practice for making difficult diagnoses and for performing surgery.

According to statements of 42 clinic managers, clinic fees appear to be regarded by the general public as neither higher nor lower than those charged by local doctors in private practice. Twenty-one managers say that in their opinion fees in their clinics are "about the same" as those

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HOSPITAL EQUIPMENT AND OPERATION

Conducted by C. W. MUNGER, M.D.
Director, Grasslands Hospital, Valhalla, N. Y.

Overcoming Major Difficulties of Standardizing Sterilization

By LORENIZ WESTVIG

Chief Engineer, New York Post-Graduate Medical School and Hospital, New York City

BY A CAREFUL analysis of the factors involved in sterilization, it may readily be seen that with the present modern appliances little uncertainty should exist.

It has been repeatedly determined by bacteriologists that bacteria exposed to saturated steam are destroyed. Whether the cause of the destruction of these bacteria is heat, moisture or pressure, or any combination of these, is of relatively little importance as long as their destruction is complete. Although there exists some discrepancy in the time and the temperature necessary to destroy them, as reported by various observers, this variation is not sufficient to justify the differences in practice.

Sterilizers, as they are manufactured to-day, are well able to meet the requirements of reliable sterilization. Automatic air extraction is the one factor that should be checked. This air extraction has not always been complete and has occasionally taken such a long period of time that the air and steam have become mixed. I have repeatedly found that the temperature was uniform in an autoclave, either partly filled with air or with the air almost completely extracted. The efficiency of the sterilizer can be most readily checked by means of a maximum thermometer, and I have suggested to sterilizer manufacturers that a thermometer replace the pressure gauge. Lately, in the larger installations, a thermo couple has been installed with an indicating and recording dial. This is the best arrangement thus far developed and should be used in all installations. I have found the maximum temperature variation due to incomplete air extraction to be four or five degrees F. This could readily be determined and due allowance made on each individual sterilizer.

Packing the sterilizer is an important procedure

and one in which may be encountered many serious obstacles that may prevent complete sterilization. In packing, the size and the destiny of the individual bundles and the compactness with which containers are filled have not received sufficient consideration. Often this packing has been done by a nurse who has not been properly instructed concerning this work, or who has never witnessed any actual demonstration in the art of correctly packing a sterilizer. For example, if a bundle is packed tightly with flat folded towels, or if a container is pressed full of gowns, sixty minutes' sterilization may be insufficient to penetrate the material in the center of the sterilizer. Towels and sheets should be loosely packed in a container so that the layers of the material are in a vertical position and can separate to form passages for the steam. Uniform packing and standardized instructions are as essential as are other influences which are mechanically determined.

Tests Lack Uniformity

Tests used to demonstrate efficient sterilization also lack uniformity. Two of the more frequently used tests are: (1) a control manufactured in such a way that it melts and changes color at a certain temperature after a definite time; (2) a test tube containing a culture of live bacteria and closed with a cotton stopper. The control has a melting point which is well above that required for essential sterilization. The test tube containing the bacteria culture presents a far more rigid test. It is obvious that considerable time will be needed for the steam to penetrate to the bacteria enclosed in a glass container filled with air and rolled inside of a bundle of towels or gowns. It is obvious that the time necessary to sterilize the culture of bacteria



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is considerably in excess of that necessary for the actual sterilization of the dressings when the steam is acting directly on the material. Packing the sterilizer and the test of the completion of sterilization are two of the main difficulties encountered in standardizing sterilization.

Saturated steam is universally recognized as the most practical sterilizing agent. The specific gravity of saturated steam is low, its penetrating quality is good and a large amount of heat is released through condensation, which quickly raises the temperature of the material being sterilized. Moisture created by condensation increases the conductivity of the heat and further accelerates the operation. The heat released by one pound of steam at twenty pounds pressure through condensation is equivalent to 960 British thermal units or 537 calories per kilogram.

Whether direct steam or steam generated in an autoclave is preferable has not yet been definitely decided. I suggest that the proponents of autoclave steam generation open a steam generator and note the amount of mud that is collected in such a generator. A steam generator should be operated solely with distilled water. In a well run hospital, the boilers should be kept sufficiently clean to supply steam fit for direct sterilization. Of course, small iron oxide particles may be carried along with the steam, but as the steam is saturated and as condensation in the pipes occurs, moisture will collect on these particles forming water droplets, which will be drained through bleeder pipes before they reach the sterilizer.

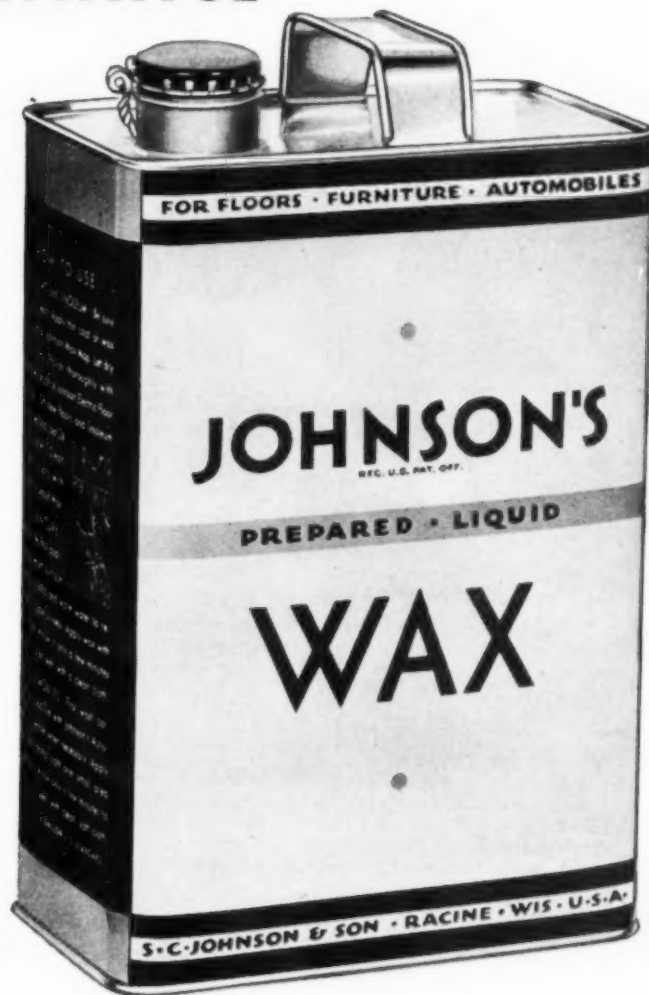
A Simple Experiment

Testing the efficiency of the sterilizer is relatively simple. Insert a maximum thermometer into the chamber and run the steam pressure up to twenty pounds. Withdraw the steam and, in accordance with the steam tables, the thermometer should record 259° F. If the reading of the gauge and the reading of the thermometer do not correspond, there is either air in the chamber or something is wrong with the steam gauge. The reading of the thermometer shows the actual conditions present.

The next step is to disconnect the air extraction pipe in front of the automatic valve, if such a valve is present, attach a rubber hose to the pipe and extend this hose into a pail of water. Reintroduce the thermometer into the chamber and begin to run the steam pressure up to twenty pounds. After this is done, the air extraction is hand controlled, and the valve should be kept open as long as bubbles appear in the water. The disappearance of air bubbles will show that the air has been extracted. Again exhaust the steam and see if the temperature and pressure correspond. If they do not correspond, it is obvious that the gauge is out of order. Of course,

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complete air extraction can scarcely be expected—there is invariably a difference of one or two degrees due to the fact that a slight amount of air will mix with the steam. A steam table giving a range from ten inches of vacuum to thirty pounds of pressure, which is readily procurable, should be posted in every sterilizing room. Such a table will also show the nurse the advantage of drying under a vacuum.

The foregoing discussion relates to the autoclave sterilization of dressing and equipment.

Sterilization by boiling is a simple procedure, but here, too, there is room for improvement. The use of a 1 per cent sodium carbonate solution will reduce the rusting of instruments and assist materially in the ease with which the sterilizer can be kept clean.

The standardization of the sterilization of liquids in bottles or flasks should be established by using standard vessels and by testing with the maximum thermometer the temperature necessary for the destruction of bacteria. Whether fractional sterilization or a continuous process is to be used in any individual case is a matter to be decided by the bacteriologist.

To standardize sterilization, therefore, it is essential that the packing be done by a person especially trained and qualified to do this work. Standardized methods of testing should be agreed upon instead of the variations that are present in the methods now in use. Further discussions concerning sterilization would contribute toward a satisfactory solution of the problem.

Keeping Casters Tight in Metal Beds

The numerous troubles of keeping casters tight in metal beds in the hospital are familiar to every hospital superintendent. Smooth, round or square posts into which the casters are driven have a tendency to expand under vibration and load, and regardless of how tight the caster may fit when it is first inserted, time eventually loosens it and it drops out, causing considerable annoyance if not absolute danger.

A new expansion socket holds the caster tight in the furniture leg with a grip that only pressure applied to the nut can loosen. The socket is slipped into the tube, and the base of the socket is turned. This forces the steel sides of the socket to expand, grip the tube and hold the caster fast. The socket will work equally well in round or square tubing, whether welded or lock joint.

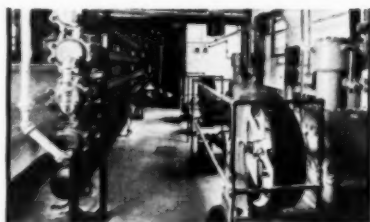
Pivot bearing and ball bearing casters with various types of wheels can be furnished with the socket.



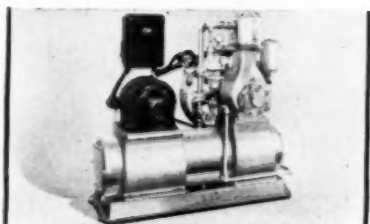
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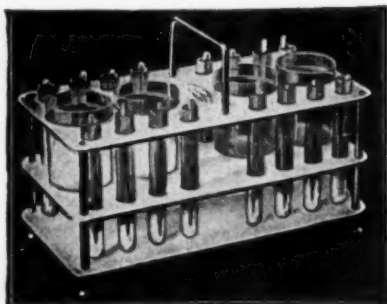
Central Oklahoma State Hospital for Insane, Norman, Okla.
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The window muffler is made for a variety of types of windows, but, according to the manufacturer, the standard sliding sash window lends itself to noise and ventilation control much better than



any other kind of window. The parts of the muffler are designed to maintain a proper balance between the noise reflectors and ventilating opening. The window can be raised eight inches without losing the muffling effect.

Circulation must be provided in good ventilation. The most common and in many ways the most effective method is by means of the ordinary transom. With air circulating through the window muffler and the transom, there is a diffusion of fresh air into all parts of the room and an entire absence of draft.

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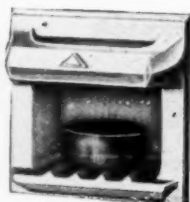
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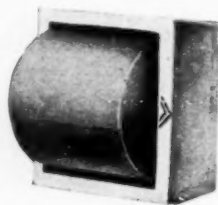
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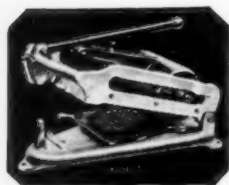
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Electric lighting fixtures that serve the dual purpose of ultraviolet ray radiation and illumination have recently been placed on the market.

The outstanding features of these fixtures, as set forth by the manufacturer, are:

Efficient ultraviolet utilization; scientific visible radiation design; freedom from glare; flexibility in direct component; pleasing soft quality of light; entire fixture softly luminous; variety of decorations and finishes; ease of installation and relamping.

These fixtures, which are of the direct-semi-indirect type, have two circuits. One circuit is for the direct lighting ultraviolet ray radiation. This circuit is used only for relatively short periods of time, to obtain the desirable health benefits of the light. The other circuit is for the semi-indirect lighting component. It is designed to be used for long periods of continued vision, in the same manner that any other semi-indirect lighting is used. Each circuit may be used separately or together.

The direct lighting component of these fixtures is efficient. In an initial installation, it will supply



forty-five foot candles of ultraviolet light upon a desk top five feet below it, and ten foot candles at a point five feet away. Foot candle values in this range are in accordance with modern good lighting standards for commercial lighting. Harsh contrasts in intensity are not experienced with these fixtures when the lighting effect is changed from one circuit to another. Instead, the ultraviolet lighting effect is distributed over an unusually wide area for this type of fixture and the distribution of light from this direct lighting circuit compares quite favorably with that of fixtures now commonly used for general lighting in such places.

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Armour's Suprarenalin Solution is used to produce a bloodless field for minor operations. It is isotonic and may be boiled for hypodermic administration. In ampules is sterile and ready for instant use. It is employed extensively in catarrhal and congestive conditions and in hay fever. It is extremely effective in bronchial asthma and is considered the best emergency remedy.

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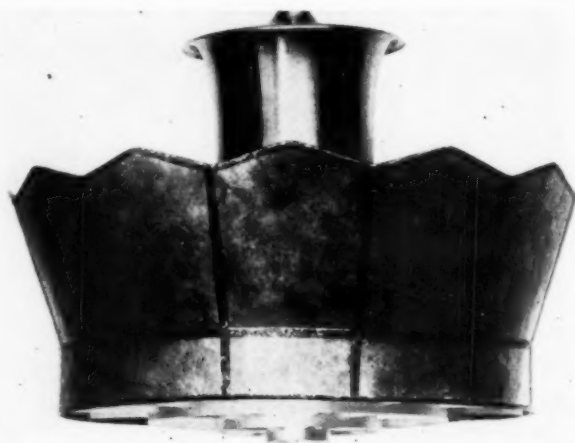
Jamison paneled wood fronts on flower lockers, Presbyterian Hospital, Philadelphia.

BRANCHES, Chicago, New York, St. Louis, Chester, Pa.; San Francisco, Dallas, Southern Ice Supply Co., Marietta, Ga. Gay Engineering Co., Los Angeles. D. E. Fryer & Co., Seattle and Spokane. Foreign: London, Honolulu, Japan.

The semi-indirect lighting circuit will normally produce from approximately five to fifteen foot candles, depending on the size lamp used, the size and shape of the room, and to a very considerable degree, of course, on the color of the walls and ceiling. The different lamp sizes are easily installed in this circuit by adjustable socket supports.

The transformer is embodied in the fixture.

A particular feature of these fixtures is the attractive color quality of the illumination obtained

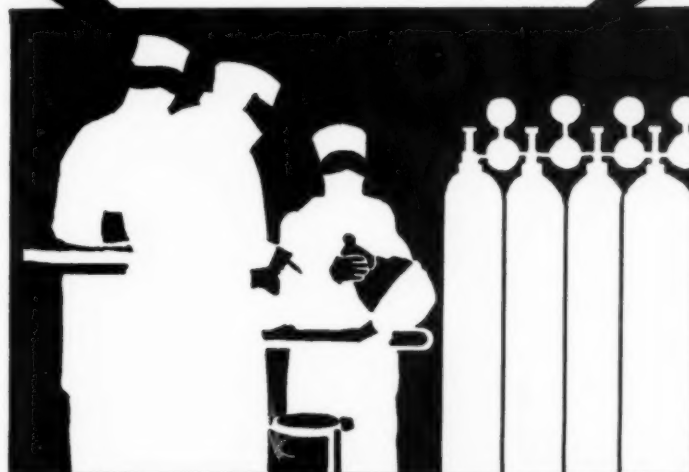


when both circuits are in use. A carefully designed system of openings in the direct lighting reflecting surface allows just enough light from each component to pass through into the other part of the fixture to blend with the light received from that part. The resultant color quality of the illumination is thus greatly improved when both circuits are in use, and the entire body of the fixture is rendered luminous and attractive even when but one circuit is used.

The fixtures operate only on 105-120 volt, 60 cycle, A. C. service.

Grasslands Installs System of Pneumatic Tubes

A system of pneumatic tubes has just been put into operation in the main building of Grasslands Hospital, Valhalla, N. Y., and is assisting materially in speeding up the work of a number of departments. The tubes are large enough to accommodate patients' charts, mail and medical and departmental information and are helpful in combating the long distances that exist between departments. This pneumatic tube system will shortly be connected with the tuberculosis building, the psychiatric institute and Sunshine Cottage and will especially facilitate the prompt interchange of communications. The need of such a system may be understood when it is realized that a person who makes complete rounds of all of the buildings at Grasslands must walk almost five miles.



TIME TELLS

It is just about twenty years ago that Nitrous Oxid and Oxygen first came into real use as a major anesthetic. Today, supplemented by Ethylene and Carbon Dioxid gases, they are more largely consumed than ever before, and the consumption is constantly growing. THE USE OF THESE PRODUCTS HAS STOOD THE TEST OF TIME.

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A Turnstile That Assures an Accurate Meal Count

To obtain an accurate meal count in its cafeteria service, the Jewish Hospital, Cincinnati, uses a turnstile. The turnstile is so arranged between



the tile wall and the side rail that it is impossible for a person to walk between the end of the blade of the turnstile.

Dr. Walter E. List, the superintendent of the hospital, says he knows of no other institution that uses a turnstile to make this determination of its meal count.

Directions for Sterilizing Maternity Pads

As a special service to the many hundreds of hospitals that are using maternity pads, a folder containing complete instructions for the sterilization of these pads has been prepared and is ready for distribution. These directions were formulated after a thorough study in collaboration with leading manufacturers of various types of sterilizing equipment.

Maternity pads can be sterilized with the same technique as other dressings, but if it is desired to preserve fully their soft and fluffy nature it is advisable to observe certain precautions. These are simple and easy, and they ensure excellent results after sterilization. Copies of this folder are available for those interested in this new sterilizing method.

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